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ART. I.—EXODUS.

Assuming that a State has attracted population and induced an adequate capital, it becomes the duty of the statesman to furnish employment to the population and capital so that each may react upon the other, and both co-operate in promoting the freedom of the people. We cannot refrain from commenting on the extraordinary perversion of the legislative province in the Southern States. If the general scope of this legislation be reviewed it will be found exclusively political in its character; the acts for material or educational development being secondary and exceptional. The theory of the Southern statesman has been that the action of the common government was to be regulated by arguments, and admonitions addressed by able speakers and writers. Hence, this leading feature of legislative action was a series of resolutions conveying animated political truths according to the doctrine of those who drew them. These resolutions with the amendments or substitutes of those who differed with the mover constituted the issues, and the results were sent to Congress as the protocol of the State upon the pending question of constitutional construction. For these discussions, education bills, railroad bills and canal bills were laid on the table, while no proposition for the universal and compensative employment of the people was considered at all. This legislation was therefore purely abstract, the remedy was political. The doctrine was embalmed in the resolutions of a party, and derived its support from the patronage which the party was supposed to control. The prosecution of a different and more practical legislation by other States attracted population and wealth, and these in time manifested such representative power that the abstract expressions of doctrines were disregarded, and found few to do them honor, beyond the limits of their peculiar interests. It is a melancholy fact that the doctrines most praised at the South were profused at the North by parties who never put the same practical construction on these doc-

trines that the South had done. The more effectual legislation of the North and West by offering more attraction to the governing elements, men and money, turned the scale against the South and brought it ultimately into bondage.

But from this digression we return to discuss the measures which should be adopted by Southern legislatures to counteract this disparity, and redress this grievance. And first among the remedial measures should be classed. The agricultural development of the South.

There are some difficulties in the way of extending, or even of restoring our full staple culture. There is a diminution of the amount of labor applicable, from three causes. First, The discipline of systematic cultivation does not exist. Secondly, there is a withdrawal of adult male laborers, who prefer other pursuits. There is a positive loss from the diminution of negro numbers, by death, emigration, and from the domestic employment, and education of the women and children. Besides this there is an annual deterioration in the capacity of the open land to produce, and there is little done towards clearing new lands or making permanent improvements on lands already cleared. There is of course something to be anticipated from the additional white labor tempted, or compelled into the plantation, with much more from the application of improved implements of labor, but the growth of the cotton crop cannot be restored to its positive product, nor normal rate of increase before emancipation. Its culture will in great part be transferred to the rich, cheap and easily cleared lands of Texas. On the east side of the Mississippi it must be for a long time stationary. We cannot forbear at this point to make application of the facts which have been procured and published in this Review, on the cotton culture of India. They have been procured for the purpose of advising our friends, the planters, of the precise character of competition with which they have to contend. The English capitalist and manufacturer, alarmed at the precarious nation of American labor, and taught the danger of spinning a thread drawn across the Atlantic, have employed the vast territory of the East Indies, and its population of two hundred millions with its discipline of caste. To this they have added an expenditure now reaching more than $500,000,000—about one-eighth of our civil war debt—to construct railroads for the transportation of this product, and the conversion of this empire to cotton labor. For the special facts we must refer our readers to the articles heretofore published, but enough is known and felt by the planters to satisfy them of two facts. First, that cotton is supplied to the extent of three-fourths of European consumption by countries other than the United States. Second, that the price of cotton is paid by the stocks held by the capitalists and spinners of England and not by the shippers of America. We need make no comment on the still precarious cotton supply of England drawn by a voyage of 12,000 miles, under the iron-clads of all Southern Europe, and with Russia steadily tunnelling her way from

the Caspian to the Punjaub. That is her affair. The Southern planter must look at the competition which cotton culture will certainly present in the East Indies, Turkey, Egypt, Brazil and the West Indies. How will he counteract this competition? First, by adopting his contracts to the character of the daily labor which he employs. We assume that the profits of cotton will steadily decline to the least price at which it can be furnished in quantity to supply the wants of the world. It has not yet declined to that price. It has therefore happened that Southern planters have sold every year since the war at a price less than that, ruling at the time of planting. Now the error of the planter has been this: He has made his labor contracts by the year, and he has furnished the laborer with rent, fuel and food supplies by the year. These prices of wages and supplies were fixed at the beginning of the year and according to prices of cotton then ruling. They were paid for at the end of the year at the reduced prices which have prevailed.* Thus the Southern planter has been cultivating without profit, and may expect to do so until cotton has touched the botton of competing production, and wages and supplies become stationary. But there is another reason why this mode of hiring and finding by the year is unwise. If the price of cotton declines during the year a planter who hires by the month or quarter can require the laborer to participate in the losses. If the crop fails from drouth, rain, or worm, he can dismiss his surplus labor, and so save himself. If he leaves the laborer to find himself, he need waste no labor in the production of perishable supplies which are consumed by the laborer without adequate compensation of waste, and very often of theft. Our advice to the planter is, therefore; First, to make short time contracts, not to exceed a quarter at one time. Second, to leave the laborer to supply his own food by purchase or garden production. These are the rules of free labor everywhere; they embody economy, disciple and safety. We are aware it will be said that short time contracts leave the planter in the power of the laborer. Grant that this were true to the extent of preventing the planter from pitching as large a crop, or indeed from pitching any crop at all. He would lose nothing of time or wear of his land and stock. But we deny that such would be the result. The laborer would be more dependent on the land-holder than at present, where he lives in the land-holders house, uses out of his cistern and rides the land-holders mule to the election. The laborer would be always dependent on the wages paid him; and would no more strike for increased wages during a crop than a sailor would during a voyage. For it is not to be supposed that the planter would deny the laborer just wages. Wages bearing a just proportion to the probable value of the labor purchased. He would receive only the power to regulate the fluctuations of the cotton market, and to divide equitably with

*There have been exceptional advances in the price, but it has so far enured chiefly to the advantage of the holder and not to the planter, who had sold his crop before the rise.

the laborers the rise and fall of the market price. That this system of short time labor contracts is best for the laborer and employee is proved by the universal mode of hiring not only mill labor and forge labor, and shop labor, but of field labor. We rest the argument on the necessity for such a regulation of field wages here, and on the universal usage of all civilized nations.

AGRICULTURAL MACHINERY AND IMPLEMENTS.

Our reasoning has thus far been confined to the cotton crop, but it applies also to sugar and tobacco. But in whatsoever cause the earth is tilled it must be the object of the planter to draw as much from the productive capacity of the soil and seasons as possible, paying as small a proportion of his receipts as possible for manual labor. This expensive element of production can be greatly reduced by the substitution of mechanical or animal power, and the latter rendered more efficacious by adopting the best implements. The steam plow is of course a desideratum, but no invention yet cures the difficulty of transporting and working this implement on the smaller plantations of the South.

CHEMICAL STIMULANTS.

These operate in like manner to reduce the extent of surface cultivated and amount of labor applied to the production of a crop. It will be an additional reason for the commercial enterprise of the South that guano will be brought from the islands, and we are glad to note the extensive exportation of mineral phosphates from the Southern States. The manufacture of many artificial agents is producing a good and extended effect. The department of agricultural chemistry should be taught in every college. The University of Virginia has set an excellent example in this respect.

SMALL CROP CULTURE.

The cultivation of vegetables, fruits and flowers will attain the same object of diminishing the labor necessary for profitable tillage with the rapid growths of the urban population of the North and East and internal West. With the aid of express lines, the Southern farmer may render his climate valuable. New York, Philadelphia and Boston, with the congeries of smaller coast towns and cities, must number a population of five millions. St. Louis, Chicago and Cincinnati will add a million more, while every railroad depot will take more or less of the earlier vegetables and peculiar fruits of the South. We need not go into details, but remark that the fruit imported from the Levant alone amounts annually to some six millions of dollars. The established success of the steam lines from the West India Islands and along her whole eastern coast of the United States in bringing fruits and vegetables have solved every

doubt on the subject and leaves nothing to be done except to participate in the profitable enterprise. A recent mail line tract granted to a company enables them to run a line of weekly steamers from New Orleans to Havana, touching at all the gulf ports east of New Orleans. What a supply of fruits and vegetables may thus be brought from the coast of Florida in exchange for Western provisions.

RAILROAD AND EXPRESS FACILITIES.

The planters do not need to be impressed with the importance of the best modes of transportation; we can only refer them to a former number of the Review to explain the indispensible necessity of consolidating railroad lines and promoting the use of express and telegraph. The business of market gardening depends on these perfect arrangements.

FACTORAGE.

The cost of regulating the sale of staple crops has been much greater in the past than it will be hereafter. For this there are several reasons. When the planter purchased his labor by wholesale, he necessarily purchased the factors acceptance as a means of negotiating the necessary capital. Indeed the factor was an intermediary between the planter and capitalist. He could not be dispensed with. The factorage and brokerage was an additional premium paid for the use of money. Then the factor was made safe in the transaction by the fact that the loan was invested in property made immediately productive. Besides the premium and interest, the productive agency of the property purchased was added to that already possessed by the planter. It was thus an agency indispensable to the planter and profitable to the factor. Now, however, the planter borrows from the factor to stock his plantation or purchase supplies. So soon as he can dispense with this agency he will do so; just as the farmer does elsewhere. The factor advancing now, in fact guarantees the weight and price of the planters crop. The planter will adopt the system of sales at auction, or of sending to distant markets. The whole course of modern commerce, of through bills and close connections tends to diminish the charges on production, and the inteligent planter will do everything in his power to promote it.

ART. II.—THE HURRICANE OF 1819.

On the 29th July, 1819, a party of United States soldiers, about 150 in number, commanded by Captain N. Young, and attended by Surgeon Merrill, were encamped in tents upon a small stream or branch about 40 miles north of the Bay of St. Louis, being on

their way from the cantonment at this place, to join a larger body then employed in constructing a military road to connect New Orleans with the interior of Tennessee. The early part of the day was cloudy, and although there was little wind felt by this command in the valley when it was encamped and surrounded by the pine forest, it was evident from the rapid motion of the clouds that strong currents of air were passing from the southeast to northwest during the day. At night there was a strong breeze through the camp, increasing gradually in force and attended by pretty copious rain. About 8 o'clock P. M., it amounted to a gale, and the tents of both officers and soldiers were swept away. This gale continued during the night, prostrating the forest trees, driving the soldiers before it, some of them to a great distance, killing one and wounding about 20 others, some of them severely. Among the latter was Surgeon Merrill, who was was prostrated by a falling tree and so seriously injured that his life was for a while despaired of.

In the morning the wind had so far abated that the scattered soldiers were enabled to return to the camp, coming in one by one during the whole day. A large portion of the surrounding forest had been prostrated to the ground, and although here and there might be seen a sturdy pine standing, not one had escaped the loss of most of its branches from the violence of the storm. Large numbers of sea-birds, including every variety to be found upon the gulf coast, had been driven to this distance from the sea, and many of them much further. Some had escaped unharmed, and being exhausted and alarmed, could be approached and handled as the tamest domestic animals. But many of them, perhaps the larger number, were seriously injured and mutilated, by having been driven violently against the trees. Some were hobbling on one leg, some essaying to fly with one wing, and many were actually dead. Few of them, indeed, lived to return to their favorite haunts.

Much damage was done beyond this point by the tempest, but between this place and the gulf shore, evidences of stronger and stronger winds were met with every mile. The roads were obstructed by fallen timber so that it was with extreme difficulty that a horseman found his way; and the heavy rains uniting with the waters of the sea, driven by the winds into every branch and bayou and submerging all the low lands, made it necessary occasionally to swim. All the streams leading to the sea were in this way changed with salt water, and the sea spray was noticed for more than 50 miles from the coast.

This storm was probably the most violent and extensive that has been known in this region since its first settlement. From Pensacola to New Orleans every vessel was driven from the sea. Some few were saved by being run into the small streams and bays, but the larger portion were lost. Many were wrecked by the fury of the winds and sunk, not a few were stranded upon the coast and the island shores, and sveral were driven up into the pine forests and there stood for many years high and dry as mournful monuments of

the storm. The loss of life was very great, few if any having escaped from the wrecked vessels. A government sloop-of-war, the Firebrand, was wrecked off the Bay of St. Louis, upon a reef or shoal called the "Handkerchief," and all on board of her were lost. Her bow was torn open, probably in dragging her anchors, and her masts, topsails and every thing standing above her deck were swept clean with its surface; and she had the appearance of having been driven side ways upon the reef, and rolled over and over. Such, indeed, was the opinion of seamen who afterwards examined her.

The shores of Biloxi, Pass Christian, Bay St. Louis, etc., were overflowed by the rise of the sea, and when the waters subsided, numerous dead bodies of men, women and children were taken up from the beach and buried by the inhabitants. Many of these were never identified, but in some cases a ring, a bracelet or some natural mark upon the person enabled the charitable rescuers to give assurance to distant friends, of the fate of lost kindred.

A. P. MERRILL, M. D.

ART. III.—STORMS ON THE SEA COAST OF THE MISSISSIPPI.

JOHN F. H. CLAIBORNE, ESQ.,

Dear Sir :

I have noticed for some time past, that our Seacoast newspapers are publishing communications from several individuals having for object to influence in the location of the terminus of the Gulf and Ship Island Railroad on the Gulf Shore ; some represent Mississippi City and others Biloxi as being the most suitable points ; but judging the communications by what they contain, those who wrote them, are either unacquainted with many material facts which should be well weighed and known before such location can be judiciously made, or are misinformed respecting them. I do not intend here to refute, nor enter into any controversy with them, as I am not in the habit of writing for newspapers. But I will give you a rough sketch of my observations and opinions respecting what I think should be well examined into, and fully understood by the committee vested with the power of making such location, before they act on that subject: and if you agree with me and think my remarks worthy of consideration, I wish you to make such use of them as you may think they deserve. If that road is ever built before the terminus on the Seacost is permanently established, the whole coast of the State of Mississippi ought to be critically examined and every point studied. It is not of such vast extent, but that the locating committee could give it a thorough examination, and before determning, make such enquiries as may be necessary for them to ascertain the point which offers the greatest natur-

al advantages and facilities, and where such terminus might be permanently established with greatest safety and at the least cost. In my opinion the point offering the greatest natural advantages and facilities, the most secure, and where it could be established at the less cost, has not as yet been spoken off in print,—and that point is the "Bay St. Louis."

But before I enter into a specification of the advantages of that location, permit me to state, the grounds on which my opinion is founded. I profess to be personally as well acquainted with the waters, bays, shores and islands, lying south of the States of Louisiana, Mississippi and Alabama as any other man. I came to this part of the country in the year, 1817, and navigated those waters on board of vessels plying to all the different places between New Orleans and St. Marks in Florida; some time as a hand on board, at other times as commander of such vessels, from the beginning of 1817 to the fall of 1823; at which time I settled at Shieldsborough on the Bay of St. Louis, where with the exception of one year that I lived at the Balise, at the mouth of the Mississippi, I have resided ever since, and whilst living there in the years 1827'28, I commanded several vessels trading between New Orleans, Mobile, Pensacola and the Balise, and have frequently made excursions to most places not only on the main land but among the whole of the islands bordering on the States of Louisiana, Mississippi and Alabama, so as to be able to notice the principal changes produced by time, and by the storms which have taken place along this coast. I have witnessed every storm, or as they are generally denominated here "Hurricanes," which have taken place since I came to the country, and closely observed their courses, their variations and the damages they have caused, specially along the coast. To illustrate what I wish to establish, a short narrative of each of those storms will be necessary:

The first storm, or hurricane, I witnessed at Bay St. Louis, took place on the 28th of July, 1819, which notwithstanding other statements, was by far the most severe and the strongest that ever blew on this coast since I came to it. In that storm the U. S. Man-of-War Schooner "Firebrand," was lost; she was a vessel of about 150 tons, carrying twelve guns, drawing about eleven or twelve feet of water, and having a crew of about seventy-five or eighty men, commanded by lieutenant Cunningham, who had set out two or three days before the storm, (leaving her lying at anchor between Ship Island and the north-end of the Chandeleur Islands), in a small boat, with a crew of six men and cockswain for New Orleans, where he was during the gale, and he and the men composing his boat's crew were the only ones who escaped out of her whole equipage. No one can tell what took place on board of her after he left her, every man in her perished. She was seen the morning of the twenty-ninth of July, after the gale had subsided, capsized, bottom upwards, lying on "the square Handkerchief," a shoal of sand between the Mississippi and Louisiana shores, off the west end of Cat Island;

how and when she came there no one ever knew; the greater number of her crew were supposed to have been confined in her hull, as she lay with her bottom upward and for a considerable length of time emitted great stench, and but few of the bodies were found; some on the Western end of Cat Island, others on the shore of Bay St. Louis, and one or two, on the shore west of Pass Christian. That storm began during the night of the twenty-seventh of July, blowing first from the east, and after day-light increasing continually; at about 8 o'clock, A. M. veered to E. S. E. and latter to N. E. until about 11 or 12 o'clock at night, when it suddenly died away to a perfect calm for about ten minutes, then as suddenly sprang up from S.W. and for about an hour blew twice as hard as it had blown from any other points.

On the night of the twenty-seventh of July, 1819, I was on board of a schooner named the "Peacock of Pearl River," lying in company with another schooner, "The Odd of Pearl River," among the Malheureux Islands, near the south-shore of the Lake Borgne, to the eastward of the place where the terminus of the Mexian Gulf Railroad from New Orleans, has since been established. About 8 o'clock, A. M. finding that the wind was still increasing and had wore to E.S E., we got under weight, by hoisting a piece of one of our sails, and ran into Pearl River, and there rode the balance of the gale at anchor in safety. During the beginning of the gale several Coasting vessels made harbor in Bay St. Louis and escaped uninjured. But the schooner "Favorite," captain Michel Elridge, was driven on the East point now known as Henderson's Point, where she remained for a considerable length of time. Several other vessels were entirely lost at different places along the coast.

The second storm, or hurricane, took place sometime in September, 1821—I think on the 21st—it began before day, the wind blowing from the East, then wore to N.E, and after 12 o'cloek chopped to S.E, and continued changing from one point to another until about 9 o'clock, P. M., when it fell to a dead calm for about 15 minutes then suddenly sprang up from S.W, blowing very hard for about 30 minutes, and subsided gradually, so that by 12 o'clock at night there was no wind from any quarter. Several Coasting schooners ran in the Bay of St. Louis in the morning of the gale and sheldered themselves in the "Portage," a deep cove, in the Eastern shore of the Bay St. Louis, and there rode out the storm at anchor without any accident. The schooner "Washington," a vessel of about 80 or 100 tons, had anchored, during the night the gale began, outside of the Bay of St. Louis towards Pass Christian. She remained at her anchorage until about 9 o'clock, A. M, where she began to drag her anchors, with the wind at East, and had nearly reached the Western shore of the Bay St. Louis when the wind suddenly wearing to the N.E., she was driven, still dragging her anchors, along the shore within about 150 yards of the land, until she came to a bend in the coast, where General E. W. Ripley, had a military encampment; there her anchors, held her until night, at which

time she was last seen on water. The next morning she was found bottom upwards, with her bows open from her deck to her keel, lying about 50 or 60 yards from the water, on the beach, over which she had been driven until stopped by the trees, at a place near where the house of James Philips now stands. Every person on board perished; some of the dead bodies were found lying from four to five hundred yards in the woods where they had been carried by the waves; no one escaped, and from the number of bodies found, it was supposed that there must have been about twenty persons on board. During that storm several other vessels were scattered along the coast, from the Rigolets to Mobile Bay; not less than four or five were driven on shore at and near Pass Christian, among them were the Sloop "James," Captain Pigéon, a vessel of about 60 tons, the schooner "Hooky," of Sandwich, a vessel of about eighty tons, and two or three others, names not recollected. During that gale and that of 1819 a greater extent of the bank along the whole coast was washed away than has been by all the storms that have taken place since.

The third storm, or hurricane, began on the 16th of August (short time before day), 1831. It differed from the storms that had proceeded it; in this, the wind blew constantly from the same point without any variation. From the morning of the 16th until in the night of the 19th, the wind blew from E.N.E. Though this gale did not equal in violence, those of 1819'21, yet owing to its protracted duration the water rose considerably higher, than it is has ever done either before, or since. During that storm the old high pressure steamboat, the "Long Branch," then carrying the mail between New Orleans and Mobile, took shelter nuder the lee of the Eastern Shore of the Bay St. Louis early in the morning of the 16th of August, 1831, and there rode out in safety, at anchor during the three days and nights that the storm lasted. Quite a number of other vessels ran into the Bay St. Louis from the Eastward during the early part of the gale, and rode it out without injury, whilst not less than eight, or ten other vessels where driven ashore at different places along the coast. The fourth storm, or hurricane, took place in August, 1835, this storm was comparatively light, and done but little damage along the coast; though it was very destructive further to the eastward, specially on the coast Florida. It began during the night, the wind blowing from the east at first and afterwards wore to S.E. from whence came the most violent part of the storm which lasted until some time in the night following. During that gale the high pressure steamboat the "Little Watchman" was driven on shore in the front Bay of Biloxi, some where between Lameuse street and John Brown's Wharf (at least where they now are, for neither existed at the time). About eight or nine days afterwards, another gale, which however lasted but a short time, sprang up some time before day, blowing heavy from the east until about four or five o'clock, P.M., when it subsided entirely. The Schooner "Rover of Pearlington," Captain Robert Daniell, lying at

anchor, when that gale began, some distance to the eastward of Deer Island, was driven from her anchorage and dragged for a considerable distance and lost one of her anchors ; afterwards the crew succeeded in getting the other anchor on board, and having put on what sail she could carry attempted to run into Bay of Biloxi, but failing therein, they ran until they came to the Bay of St. Louis and reached there about eight or nine o'clock, A.M. and anchored in the Bay; though having only one anchor they rode the remainder of the gale in safety. The fifth storm, or hurricane, took place some time in September, 1839. It began, (I believe but am not sure) between nine and ten o'clock, P.M., it was of short duration having cleared before day ; it was scarcely felt to the eastward of the Bay of St. Louis, where the wharves and bathing houses were swept away, but no vessels damaged. The low pressure steamer the "Merchant," was driven on shore, in the bend, near St. Joseph's Island, about nine miles westward of the Bay of St. Louis; but the bottom there being soft she was got off some time afterwards without any serious injury ; but further to the west its ravages were considerable ; New Orleans was partially inundated by the water from the lake, number of ships were blown from their mooring at the levee, and many were seriously damaged ; at the lake end of the Pontchartrain Railroad, all the steamboats, three or four in number, and all the vessels lying there, were driven ashore, and several houses in Milnburgh were either blown down, or washed down by the waves. During that gale the wind blew first from the eastward and afterwards from tha N.W. The sixth gale, or hurricane, took place in the month of August, 1852; that storm differed from the usual course of those that preceeded it. It was scarcely felt in New Orleans or on the lake Pontchatrain. At the Bay St. Louis it blew very hard, but entirely and without any variation from the N. W., which being off the land and blowing directly out of the Bay, drove the water away and made no sea; as the greatest damages in these storms are caused by the waves, this gale did no harm at the Bay St. Louis, though the wind was very high and quite a number of Coasting vessels, both loaded and empty, were lying there at anchor, yet none suffered any damage. But further to the eastward the storm varied considerably in its course at different points along this coast; during its continuance quite a channel was cut by the waves completely through Ship Island, and through several places on the Chandeleur Islands. In Mobile Bay the wind blew, first from the east and afterwards from S.E., causing great damage in the Bay, where several large ships were driven ashore; but more especially in the City of Mobile, where the wharves were all destroyed, part of city inundated, and number of vessels carried up in the streets. The seventh gale, or hurricane, took place on the 15th of September, 1855. That gale is stated by a writer in the Handsboro Democrat as having been the most violent felt on our coast; that writer has not properly witnessed those that preceeded it, or his opinion must have been changed, since it can-

not be compared either in violence, duration, or consequences, with those of 1819'21 and '31. The same writer says also that those storms along this Coast generally begin at N.W. and vary to E.S.E. My experience is very different; with the exception of the storm of 1852 every one I have witnessed began at east and varied to north-east, afterwards to south-east, and finally to south-west.

The storm of 1856 as almost every other which preceeded it, began with the wind at east during the day of September 15th, increasing towards night and blew from that quarter the whole night, still increasing until day-light on the 16th when it began to moderate and by eight o'clock, A. M. had nearly subsided, and had fallen to a dead calm by nine o'clock; when the rain began to fall in torrents, and as quick as thought the wind sprang up from south-west, and from that quarter blew for about three-quarters of an hour fully, twice as hard as it had blown during the whole storm. The water on the Bay St. Louis was raised by the violence of the south-west wind, during the short time it lasted, more than four feet and a half. The wharves and bathing houses had all been swept away long before day-light, yet no other damages had been done on shore until the wind sprang up from south-west then it tore up, and broke up, and blew down trees and fences, and destroyed nearly all the orchards about Shieldsborough. The low-pressure steamer "Creole," the coast packet, came to the wharf at the Bay of St. Louis, some time about 12 o'clock, in the night of the 15th of September; the wind was then blowing very hard from the east, she however succeeded in landing some passengers; on leaving the wharf, finding that the east-wind was too strong to proceed on her trip, she steamed under the shelter of the point of the Bay, known as Henderson's Point and there anchored, but, some time before day, finding that she was dragging her anchors, steam was got up and she ran into Jourdan River, at the head of the Bay of St. Louis, where she rode out the remainder of the storm in perfect safety. During that night two schooners lying near the western shore of the Bay were driven ashore near Cowand's place (but a few days afterwards they were got off without much difficulty). Two other schooners which had been anchored near the middle of the Bay, rode out the whole storm without receiving any injury.

During the time between 1817, to the present time, we have had numerous gales, or blows, but none excepting those I have described amounted to storms, though in many coasting vessels were driven into harbor, and in every instance, almost without exception, the Bay of St. Louis has been the most resorted to on account of the facility of its access and the safety of its anchorage.

J. C. Moret.

ART. IV.—FORMER INDIGO CULTURE.

It is well known that among the most cherished objects of the old colonial culture, under the French government, in Louisiana, was that of the valuable dye stuff named Indigo. This color plant being the vegetable product of the East Indies, and employed in the European manufactories since the the remotest times of history, was thought to be one of the staple articles of commerce that might be successfully supplied from the colonial possessions to the mother country. Under this impression all efforts were made to induce the colonial setlers to devote there attention to this coveted indigo plant, and we therefore behold even as far back as the time of father Charlevoix's visit to Louisiana, that is in 1722, essays undertaken to raise this weed in the opening gardens then just cleared in the primeval forests. Thus the father above named declares that upon inspecting the new settlements made in the vicinity of Fort Bosalie, at Natchez, he had seen several specimens of this valuable plant on the grounds cultivated by the people belonging to the Mississippi Company; and that he entertained not the least doubt but what this precious product could easily be raised in the rich lands of the new colony. He also remarked that a wild species of indigo covered the soil in the thickest parts of the forest, upon salt or fat ground, and concluded from this circumstance that the real or cultivated dye stuff weed would equally thrive in similar localities. Upon other openings, about the Lafourche settlements he had also occasion to visit the new planting, on the concession of Messrs. Pavis, when he found that not only tobacco and mulberry trees had been reared but also the much prized indigo bush. In later times this culture became a pretty universal one; and it is related more particularly that upon both the grounds, below the city of New Orleans and above, indigo, for a lapse of years, was the main staple crops in cultivation among the planters. For ourselves we can state that in 1816 we still saw part of the vats and machinery used upon the old Gravier plantation for the manufacture of that article. These remnants of a once flourishing plantation were to be found in the back part of the Fauxbourg St. Mary, as that district was then called, and about the present site of the gas work distillery. Old John Gravier, the surviving brother of the Gravier's was then living in a very dilapidated old dwelling house in the vicinity of Poydras street, close to the cypress swamp to which a most dismal canal was conducting the surplus rain waters. There in that moist and dark looking region could be seen the remains of former indigo manufactories. As for the lower part of the wide open spaces, then situated behind Fauxbourg Marigny, they were in the summer season mostly covered with a dense vegetation of wild or abandoned indigo weed, but, except the old canal and little basin, still existing there that may have been used in this manufactory, we could discover no

other vestiges of former indigo culture in that particular locality. The culture of this plant appears not to have required much pains or labor, and according to what we could learn from old planters, they had given up this branch of agricultural business, mainly on account of its reputed unhealthiness. For, although it is recorded in some historical recitals that the indigo culture had been abandoned by the Louisiana people because, in successive years the crops had been greatly injured by immense clouds of locusts or grasshoppers who would nearly devour whole fields and districts planted with the green weed, we are yet inclined to side with the old planters opinion, that the sugar cane and the cotton stalk were considered a much more beneficial planting concern than the poisonous enhalation of the dye-stuff weed, when rotting in the large vats and basins for the formation of the blue color sediment. Numbers of the old creole planters, who had lost more or less valuable slaves or field hands, could not but be of the opinion that this most nauseous stench, accompanying the draining of the pressed down and corrupting weeds, had been the effective cause of their unusual mortality upon their otherwise so healthy plantations, and therefore concluded even to exchange this deadly business with that of the tobacco making branch. This information we received more particularly in the parish of Natchitoches, one of the most healthiest of the State, and where both of these branches of culture in ancient time had been carried on upon a very extensive scale. With regard to the quantity of this product made by a hand we find it stated that the average revenue of a cultivator was counted about 140 pounds, which when sold at the common market price of one Spanish silver dollar, would net as many dollars as pounds. When we compare this result, with either the sugar or cotton culture, we at once perceive that these later products were by far the more profitable ones, and it cannot be disputed but what this difference in their favor was the main cause of all the other staple articles, such as rice, tobacco and indigo, being abandoned for the successful cultivation of the former. When to this we add that as for soil, indigo and tobacco required somewhat of the very richest bottom grounds; it will also be apparent that in many localities this commodity was not always to be met with as desirable. This is often the case upon such tracts as the caving in of river shores, found upon the Red River and the Mississippi, here the banks falling or sinking into the current by being undermined are very often carried away with most fertile border tracts, leaving the clearings of the planter, with the inferior back soil, either of heavy swamp ground or loose sand shoals unsuitable to the culture of the above named plants, regarding rich fat mould.

Whether under these circumstances it would be really advisable to recommend to our planters the resumption of this once staple crop, we must leave to others to decide. For our part we have stated such information as was communicated to us by altogether disinterested parties. Perhaps at the present day, when cotton has all of

a sudden been raised in so many different quarters of the world, this plant may offer less profit in this regard than the indigo dye; and should our sugar culture sustain other misfortunes by unforseen calamities, it may, perhaps force upon the Louisiana people again to try the indigo weed, as a home or domestic dye-stuff, protecting it by heavy article duties. In such a contingency, and the consideration of former life risk, by the immediate workman being no longer so great, whilst employing the modern disinfectants, it may become an economical question, whether this altered state would not permit monied men or capitalists again to enter these enterprises of agricultural industry. We throw out these suggestions as so many other plans for the recuperation of our Southern interests; though we are fully of opinion that the real farming business, such as we have detailed in former essays, will always obtain the preference to any indigo or rum manufactory or other special deviation from the rural planting economy.

C. D.

ART. V.—THE WEST INDIES.

At this time the West India Islands, so far as number is concerned, are chiefly possessed by Great Britain; but Spain, France, Holland and Denmark have all an influence there; the single Island of Cuba being larger in extent than all the English possessions, and the independent Island of St. Domingo almost as large. The United States have never had a foothold anywhere between Florida and the Caribbean Sea, although the famous Ostend conference of American ministers in Europe was held to secure the Island of Cuba, and the acquisition of other islands have since been talked of, though never seriously debated. Within a few weeks there have been repeated cable dispatches about the intentions of Mr. Seward to purchase the Danish possessions in the Leeward Islands.

The American people the more rapidly believed in the reported negotiations from the recent acquisition of Russian America. At the same time with these negotiations, which, though denied by the Danish government, may yet culminate in a purchase through Mr. Seward's passion for real estate, the intention of the Secretary of State to purchase the Bay of Samana was also reported. From this it would appear that Mr. Seward's object is to secure the three passages into the Caribbean Sea from the Atlantic Ocean, namely, the Windward passage, the Mona passage, and the passage between the Leeward Islands.

The Danish possessions consist of three small islands; St. Thomas, St. John and St. Croix or Santa Cruz. These islands belong to the Virgin group, and are east of Porto Rico. They are very small and are very unimportant; Santa Cruz being the largest, and St. John the smallest of the three. The entire arena of these islands is only

110 square miles, and the population about 37,000. There is but little variation in the population from year to year, that of Santa Cruz being about 26,000 and St. Thomas 13,000 souls. The population of St. John is merely nominal, and it enjoys no importance in any respect whatever. In the Island of St. Thomas the population is confined almost exclusively to the town, but 2500 acres of land being under cultivation, and that is confined to raising vegetables, grasses, and a little cotton.

The want of laborers is the chief obstacle to the agricultural interests of the Island, the laboring population being principally employed in the harbor and as porters. During the late war, St. Thomas enjoyed an ephemeral importance from being the resort of rebel cruisers, and it was to this port the English mail steamer Trent was bound when the emissaries Mason and Slidell were taken from on board by command of Capt. Wilkes, of the San Jacinta. In the war of 1812 it was sometimes resorted to by American privateers and English men-of-war. A notable instance of this is the case of the English ship Hibernia, which was met and fought by the famous privateer Comet, Captain Boyle, of Baltimore, both vessels being so much injured as to be compelled to put in for repairs—the Comet into Porto Rico, and the Hibernia into St. Thomas.

In commercial importance St. Thomas takes the lead, but is excelled by Santa Cruz in agricultural products, though all of the islands enjoy unimpeachable freedom from enterprise or thrift. In 1859 the English imported from these islands products to the value of £124,882, and exported thereto manufactured articles to the value of £652,252. During the same year the imports from other countries were valued at £677,557. These figures show the value of goods bought by the Danish subjects in the West Indies, the increase from year to year being a few thousand pounds, having reached in 1863 £710,575 from the United Kingdom, and £731,683 from all other countries. In the value of products annually taken from the islands by British subjects, there is greater variation, these having fallen off in 1860 to £66,977, in the next year reached the surprising sum of £375,204, but in 1862 they again fell off to £74,398, and in 1863 reached £160,352. The imports are principally manufactured cotton piece goods, linens and wearing apparel, silks, woolen, hardware, iron and coals. The principal exports are straw hats and pearls. Some years the exportation of cochineal, indigo, Peruvian bark, and oil of turpentine is very heavy. In 1859, the cotton exported was valued at £44,465. This ceased altogether in 1869, and did not revive until 1863, when it reached £13,192. Some, or indeed all, of this may have been obtained from rebel sources. The port of St. Thomas is open to the commerce of all nations, and is a depot of goods from the adjacent islands, but the statistics of its trade have little interest or importance. In 1863, the amount of tonnage was 95,819 tons, and excess over the previous year of 13,278 tons. The increase on British tonnage in 1862, '63 and '64 was owing to the war, American ships obtaining British registers to

save them from capture by rebel privateers, and the establishment of a semi-monthly line of steamships from Liverpool to the West Indies, the Spanish Main and the Pacific for which this is a port of call. The number of vessels from abroad visiting the harbor annually is about 600. There is considerable trade between this country and St. Thomas, especially in breadstuffs and provisions. The value of manufactured and other goods imported from Great Britain in 1863 was over $4,000,000.

The harbor of St. Thomas previous to 1863 was obstructed by the narrowness of its channel, but in that year a ship was sent out from Copenhagan with a dredging machine to clear and deepen the harbor and open a passage to the west, and it was believed that if a channel of clear water could be obtained, impurities would be removed. It was also proposed at the same time to establish gas works in the town and to furnish its inhabitants with a supply of water, the people being before dependent upon rain water. But with these improvements St. Thomas, even under Mr. Seward's manipulations, will scarcely become a rival of the great commercial cities of this continent.

Santa Cruz is a delightful little island, only 20 miles in length, and five in breadth; it has a mild temperature, a fertile soil, and numerous streams, with a population mostly rural. Nearly the whole island is cultivated. Christianstadt, the capital town, contains a population of 5000. The Island was discovered by Columbus on his second voyage. It has since been in the possession of different nations, and was ceded to Denmark by the French. The English took it in 1807, but restored it to the Danes by the treaty of Paris in 1814. The surface is level, with a range of low hills in the north, in which respect, as well as being more fertile, it differs from St. Thomas, which presents a rough and uneven prospect highest in the center.—*New Orleans Crescent.*

ART. VI.—THE BRISTOL CONVENTION.

This body adjourned on Friday after a very pleasant session of three days, during which there was great unanimity in the proceedings.

There were present many of the first men of Virginia and Tennessee, those of the latter preponderating in numbers.

The Hon. L. C. Haynes addressed the Convention on Wednesday, on which day there was not much done except the usual preliminaries.

On Thursday there were several speeches made at the morning session, after which the Convention took a recess till half-past two, at which time it reassembled and received the report of the committee on business. This committee was composed of the following gentlemen :

Henry H. Ingersoll, Greenville, Tennessee; F. N. Watkins, Farmville, Virginia; S. W. Donnegan, Huntsville, Alabama; James C. Taylor, Montgomery county, Virginia; Gen. William Mahone, representative of railroad interests; Colonel George D. Bolling, Board of Trade, Petersburg; Gen. A. E. Jackson, Bristol, Tennessee; Pitser Miller, Memphis, Chamber of Commerce; C. W. Statham, Lynchburg, Virginia; Major J. O. Hensley, Bedford county; William Macfarland, C. C. G. & C. Railroad; E. Simmerly, Esq., East Tennessee and Virginia Railroad; General R. F. Hoke, West North Carolina Railroad; Colonel —— Wicks, President Memphis and Charleston Railroad; Colonel R. W. Hughes, Virginia and Kentucky Railroad; Charles Seymour, Knoxville, Tennessee; Colonel G. C. Walker, Norfolk and Petersburg Railroad; Hon. E. S. Martin, Lee county, Virginia; W. D. Reynolds, Norfolk Board of Trade; Colonel J. B. Cary, Richmond Chamber of Commerce; S. A. Stevens, city of Norfolk; B. M. Jones, Esq., Danville, Virginia; G. P. Fry, Carroll county, Virginia; C. S. McKinney, Rogersville, Tennessee; E. F. Tiller, Esq., Scott county; T. L. Conner, Russellville, Tennessee; J. W. Logan, East Tennessee and Virginia Railroad; Major J. D. Lockhart, Nashville, Tennessee; W. A. Montgomery, Lead Vale, Tennessee; E. M. Armstrong, Roanoke county, Virginia; Colonel R. A. Richardson, Smythe county; submitted the following report:

Whereas it is evident from facts and information given to this convention composed of delegates representing the commercial, agricultural, mining, manufacturing and other interest, extending from the Virginia seaboard to the South and great West, that the establishment of a line of steamers between Norfolk and Liverpool is not only advisable but also practicable; and

Whereas, it is deemed expedient, in order to secure the permanency of said line of steamers that they shall be, at least in part, owned by the parties above alluded to; therefore, be it

1. Resolved, That a company, with adequate capital, be formed, to carry into effect the above views, and that the same be styled the "Norfolk and Liverpool Steamship and Navigation Company."

2. Resolved, That for the purpose of carrying into effect the foregoing resolutions, the committee recommend to the convention the the formation of a financial, provisional and executive committee, consisting of General Wm. Malhone, Gen. Geo. Manny, W. D. Reynolds, J. A. Johnson, R. M. Barton, S. W. Donnegan and T. A. Nelson, who shall be empowered to take and receive subscriptions of stock under the agreement hereto annexed, and to apply for and obtain a suitable charter or charters for the government of the "Norfolk and Liverpool Steamship and Navigation Company ; and to call for instalments of stock under the provisions of said articles of agreement, and who shall have power to call the stockholders together at such time and place as they may deem necessary, for the permanent organization of said company, and to make all necessary contracts for procuring subscriptions of stock, and otherwise preparing for the organization of the company.

3. Resolved, That the various immigration societies, organized in the Southern States, be cordially invited to co-operate in the movement inaugurated this day.

Exhibit A is a contract providing as follows: That an executive committee, composed of General Mahone and six others, are to receive subscriptions from persons or corporations, to the capital stock of the company. It further ptovides that as soon as the sum of $300,000 of capital stock has been fully secured, the executive committee shall call a meeting of stockholders for the purpose of organization, and the subscriptions so received shall not be binding until the above amount shall be obtained.

The foregoing report, after some discussion, was unanimously adopted.

Col. R. W. Hughes, of Abingdon, then offered the following resolutions:

Resolved, That when the convention adjourn it shall do so to meet again at Norfolk, at some future time to be designated by a committee of arrangements hereinafter appointed.

Resolved, That the Board of Trade of Norfolk shall constitute that committee.

Resolved, That the said committee shall extend invitations to the cities of Cincinnati, Louisville, Chicago, St. Louis, and the various cities and towns, corporations, etc., represented in this Convention, together with the Presidents and directors of the several railroads in Virginia, Tennessee and Kentucky.

Resolved, That the object of the said adjourned Convention will be to consider the perfection and completion of the railroads connecting Norfolk with the Ohio and Mississippi Valleys to the direct trade with Europe.

We thus see that everything practicable was done to secure the objects of the meeting, viz: the inauguration of the "Norfolk and Liverpool Steamship and Navigation Company," the details of which will be completed hereafter. In the meantime subscriptions will be received as provided for by the resolutions.

The Convention is to meet in Norfolk in November next, after the presidential election. We do not think it very probable that Virginia will be allowed to participate in that election; but Tennessee and some other States will vote, and so to ensure a large attendance, it has been put off till after that event.

We should have preferred that September had been chosen for the reassembling of the Convention; for that month would have better suited us in view of the opening of our fall trade.

The resolutions of Colonel Hughes, the President of the Virginia and Kentucky railroad touch upon a subject of vast importance to Norfolk, viz: the connection between our city and the northwest. Our citizens have not devoted their thoughts sufficiently to this subject.

We wish of course to get the trade of Tennessee and of much of the Southwest as possible; but that country has been very much

devastated by the war, and a communication with it will not be half so important to us as that with the Northwest.

The link to connect Bristol with Cumberland Gap will be only ninety-five miles long, and from Cumberland Gap to London, in Kentucky, will require a track of only forty-five miles—total length of additional rail necessary to connect us with Louisville, Cincinnati, St. Louis and all the Northwest and West as far as San Francisco, only one hundred and forty miles. This connection will bring an incalculable amount of trade to Norfolk on a route so much nearer to Europe than through New York.

These resolutions of Colonel Hughes do not conflict with the objects for which the meeting is to be held here in the Fall, and we hope that we shall then not only carry through the great steamship line, but, aided by the West and Northwest, inaugurate the connection with those boundless regions, whose illimitable products, if sent through Norfolk, will soon make us distance Baltimore, and become in a few years a formidable rival to New York itself.

We have been informed by a member of the Bristol Convention that there was but one idea there, and that was that Norfolk was the port of the whole of Tennessee and a very large portion of the Northwest—indeed no other point was talked of. The whole country from this place to Memphis looks to this city as its port, and to this alone, and we must exert ourselves to take this tide in our favor while at the flood. Let us, moreover, endeavor to fix the attention of the Northwest upon our port as firmly as we have done that of the Southwest, and we hope that not only will Memphis and Nashville contribute to our greatness, but every rich city and State from the Kentucky line to the Pacific will do the same, and that in a few years we shall see our city the emporium of the commerce not only Europe, but of Japan and China.

ART. VII.—THE DARIEN CANAL.

As the project of a ship canal across the Isthmus of Darien was brought before the public fifteen years ago, and then dropped, the first question that will be asked is, why has it lain in abeyance since then? It must be premised, then, that, on his return from a journey to the Sierra Nevada of California, in 1849, Dr. Cullen examined the shores of the Gulf of Panama and the Gulf of San Miguel with the object of finding a practicable entrance for a ship canal, and continuing his researches, entered the river Savana, and discovered the route about to be described. In spite of most formidable and appalling difficulties, he made a more particular examination of it in each of the three following years. In 1852, a short reconoissance was made at each side by Messrs. Gisborne and Forde, whom Messrs. Fox and Henderson and Mr. Thomas Brassey had sent

out. In 1853, in consequence of their favorable report, the Atlantic and Pacific Junction Company of London was formed. The directors were: Lord Wharncliffe, chairman; J. Pemberton, Heywood, Esq., deputy-chairman ; J. S. Brownrig, Ch. Brownell, T. R. Crampton, E. Cropper, J. C. Ewart, G. D'Olier Gowan, W. I. Hamilton, Lewis H. Haslewood, H. T. Hope, Hugh Hornby, Admiral C. R. Moorsom, Captain Mackinnon, R. N., A. Montoya, his Excellency Francisco de Riveirro, his Excellency, Ezequiel Rojas, Melvil Wilson, Alexonder Wilson, Milner Gibson, M. P., and Baron Antoine Rothschield. The bankers were, Messrs. Heywood, Kennards, and Co.; the solicitors, Messrs. J. C. and H. Freshfield; the official auditor, J. E. Coleman, Esq.; the secretary, Dr. Black; and the engineer-in-chief, Lionel Gisborn, C. E. The offices were at 36 Moorgate-street, and 8, New-street, Spring Gardens.

Soon after the formation of the company, Dr. Cullen applied for permission to go out to Darien three months before the engineers, in order to clear a bush-path along the line, so that they might have room to carry their instruments; but his request was refused. He then applied on two occasions, but with equal ill success, for authority to act as guide to the exploring party, and to negotiate a treaty of friendship with the Indians.

In December, 1853, a large staff of engineers, most amply provided with money, instruments, and necessaries of all kinds, was sent out by the company to survey the line; and three British, a French, and an American ship-of-war were stationed in the harbors to assist them. However, very unfortunately for all concerned, *six weeks before their arrival on the coast of Darien*, Commander J. C. Provost landed on the Pacific side, and made an unsuccessful attempt to reach the Atlantic; and, *two days before their arrival*, Lieutenant Strain, U. S. N., landed in Caledonia Bay, on the Atlantic side, with the intention of crossing over to the Pacific. Thus, instead of a single well-arranged plan for making an impartial and thorough examination of the route, there were three unconnected explorations in different and wrong directions, of which two were conducted without the use of compasses! or even bush-knives!! and not one was brought to a conclusion. In each case moreover, the commanders were guided by "volunteers," who were agents sent to offer their gratuitous services by the opposition company, namely the Atlantic and Pacific Ship Canal Company, of New York, the promoters of which—F. M. Kelley, Esq., George Law, Vanderbilt, &c. —proposed to cut a canal by the Atrato route, which Humboldt had recommended on the authority of the Biscayan pilot, Goguencche.

Thus Commander Prevost was guided by Messrs. Kinnish and Nelson,* and Lieutenant Strain by Messrs. Avery and Boggs, of the Atrato Company, and also by Messrs. Holcomb, Winthrop, Forster and Bird, of the Panama Railway Company.† Mr. Holcomb was the

*Ross, Dr. H.M.S. Virago. Report of the expidition sent cross the Isthus of Darien.

†Headly Mr. Narrative of Strain's expedition, in Harper's Magazine for March, April and May, 1855.

station-master at Aspinwall, Mr. Winthrop was nephew to Aspinwall, one of the contractors, and Mr. Forster was the editor of the *Aspinwall Courier*—a newspaper supported by the Railroad Company. Lastly, Mr. Gisborne placed himself under the guidance of Colonel Augustin Codazzi, who, although in the service of the New Granada Government, as chief of the Chorographic Commission, was also father-in-law of Florentino Gonzales, a doctor of law, who, since the unfortunate fate of Senor Cardenas in the Amazon, was sole concessionaire of the Attrato route. Codazzi was likewise an engineer of the Atrato Company, and had just sent to New York a most favorable report of their line.

Although not one of the above gentlemen had ever before set foot on the Isthmus of Darien, and although Dr. Cullen accompanied by Mr. Gisborne, yet, as the directors had refused to give him any authority or position in the conduct of the expedition which had been sent out to promote a project that had originated with him, he was not permitted to interfere in any manner whatever, and not only were his offers to act as guide rejected, but the course taken was directly opposite to that which he had pointed out.*

The result was that the engineer-in-chief, in his Report§ to Lord Wharcliffe, dated Her Majesty's ship Espiegle, Caledonia Harbor, April 4, 1854, stated that a tunnel 3 miles in length would be necessary, although the same Report concluded as follows: "I am quite aware, that in now concluding my surveying operations,† there is a great deal of interesting information still wanting, and that my examination of the isthmus is not near so perfect as I had hoped to make it." This indeed, had been so manifest, that Commander Parsons, of Her Majesty's surveying ship Scorpion, in a letter to Dr. Cullen, dated San Juan de Nicaragua, May 15, 1854, says, in allusion to Mr. Gisborne's opinion as to the necessity for a tunnel: "Of course I shall not consider the matter thoroughly settled *until further search is made.*"‡

The same opinion of the imperfect and partial character of the inspection of the country then made was expressed by Baron Humboldt, M. Malte-Brun, M. Michel Chevalier, and Mr. T. C. Vincent, of New Park-street, Southwark, who had spent several months in Bogota, examining the archives there in search of the accounts of the attempts made by the Spaniards to open a road across Darien.

More recently, I. Gerstenberg, Esq., F. R. G S., in the discussion on Mr. Laurence Oliphant's paper "On the Bayano River," read before the Royal Geographical Society on the 24th of April, 1865, said: "The only route I believe to be practicable is the Darien route. . . . Dr. Cullen and commander Parsons have stated that

*"Over Darien." Reports of the Mismanaged Darien Expedition, with suggestions for a Survey by Competent Engineers, and an Exploration by Parties with Compasses." London; Effingham Wilson, 1856. There is a copy in the British Museum.

†This report was never published.

‡This can only be regarded as a grandiloquent euphuism, or façon de parler. There was no survey, nor even an exploration.

there is a valley running through the main ridge to Caledonia Harbor. The only point to be settled is the existence of this valley, which subsequent explorers failed to find, *because they did not wish to find it*, owing, as I believe, to the jealousy of the Panama Railroad Company, and of the *Consessionaires* of the Atrato route, who had rival interests, and consequently did not desire that the transverse valley should be found. In the hypographical map of Parson's "Survey of Galedonia Harbor and Port Escoces," he gives several views of the cordillera; and View 3 clearly shows that the Cordillera at that point is not an interrupted chain, but is broken into two seperate and distinct ridges, between which a valley may naturally be expected."

The above-mentioned report, however, arriving just at the outbreak of the war in the Crimea, determined the directors to dissolve the company, returning the shareholders their deposits without any deduction. The project, in consequence, fell to the ground, and has lain in abeyance ever since.

It will be found, nevertheless, upon a survey being made by competemt engineers, sincerely desirous of the success of the project, that, by following the course laid down in this paper, the necessity for a tunnel can be avoided.

THE ATLANTIC HARBOR.

As it would not be practicable at all times to sail into a canal direct from the open sea, safe anchorage must first be obtained very near its entrance, and that opening must itself be perfectly protected not only from injury from land floods, but from the effects of storms, from the surf and heavy swell of the sea, and from any accumulation of sand, mud, or shingle. Delays, dangers, difficulties, and expense would be the consequences of using a canal not provided with the adjunct of a good harbor at each end, and such a canal would not answer the requirements of commerce. For any line, therefore, by which it may be proposed to effect the junction of the two oceans, the *sine qua non*, the preliminary and indispensable requisite, is that it should have at each terminus a good harbor, capable of affording secure anchorage at all times, in both the dry and rainy season, safe and sheltered from all winds, having sufficent capacity and depth of water, and easy of ingress and egress. The following description will, perhaps, be sufficient to prove that the Darien route is adequately provided with secure harbors at each end.

On the Atlantic coast a series of good anchorages extends continuously for 12 noutical miles from S. E., to N. W., namely, Port Escoces, 2¼; Caledonia Bay, 3½; Caledonian Harbor, 2½; and the Channel of Sassardi, 3¾ miles in length. All these have great depth of water, the least being 6 fathoms. They are so extensive and (with the exception of Caledonia Bay, which is in an open roadstead) so perfectly sheltered that whole fleet might ride safely in them.

Port Escoces is a noble harbor, with from 6 to 9 fathoms of water over a bottom of sand, except in its innermost part, where the water shoals to three fathoms. It extends inwards 2¼ miles, with a breath of from ¼ to ½ a mile. It is very safe, being protected from the winds and waves by a promontory, on the inner side of which the Scotch colonists built the town of New Edinburgh and the fort of St. Andrew. The summit of the promontory is 580 ft. high, and the hill at its point 260 ft. Both are covered with forest. The latter was named Patterson Hill by Parsons, as it was from its top the colonists were accustomed to look over the sea in the evening, in the direction of Scotland. The author was the first to point out the site of the settlement, and in 1854 brought Dr. McDermott, of H. M. S. Espiegle, to search for the canal that the colonists dug round the fort, but it was dark when they reached the place Dr. McDermott afterwards returned with Commander Parsons, and they found the canal quite perfect. It is 130 paces in length, cut angularly as a fortification, and has an embankment on the inner side. Its north entry, 8 feet deep and 12 feet wide, is cut through rock They dug into several mounds, having the appearance of graves, but could find nothing: these may have been heaps from the ruins of houses, and the cemetery may have been at some distance from the fort. They could find no guns; probably these were removed by the Spaniards, and now, perhaps, help to form the barrier round Fort San Jose, at Carthegena.

Several rivulets falls into Port Escoces, and offer facilities for watering. Their water, and that of the rivers of Darien in general, is clear, cool, sparkling, and delicious.

The entrance into Caledonian Bay is between Point Escoces and Isla del Oro or Golden Island, which bears from the former N. 40° W., distant 4 miles. From this line it falls inward 1¾ mile. It is clean, and has great depth of water. The greater part of its shore is beach, near the middle of which disembogue the rivers Aglaseniqua* and Aglatumati.

Point Escoces is 7 miles N. W. ¾ W. (N. 48° W.) of the point at the entrance of Carreto Harbor.

Golden Island is wooded to the summit, which is 470 ft. high, and has a cliffy appearance at the base and sides. It has a rivulet of clear water and a landing place at the south side. Lionel Wafer, the surgeon of the buccanneers, and Captain Barty Sharp stopped on it for fifteen days in the year 1680. About 1½ miles S. of Golden Island is a smaller one, named St. Augustin, or Assention, on which there is a large space covered with a mass of bricks and tiles, the ruins of a magazine which the spaniards built in 1785, and from which it derives its Indian name Kinki Topoo, or Gunpowder Island. It is interesting as being the place where the treaty of peace between the Spaniards and Indians was signed on June the 9th, 1787. It was cleared in 1854 by Captain Hollins, of the U. S. corvette Cyane, to receive the jackasses which Lieutenant Strain, U.

*Letters on the Darien Canal. London: Effingham, Wilson, 1857.

S. N., had brought down from New York, under the erroneous impression that there was a road across Darien, by which his party could ride over to the Pacific! Rather more than a cable's length south of San Augustin is Piedras Islet, so named from the rocks close to its shore.

In Caledonia Harbor, between San Augustin and the three large Sassardi Islands, which are to the N. W., are Dobbin Cay, Espiegle, Cyane, and Chimere Islands, and Scorpian Cay. The four last were named by Parsons after the vessels of war that were engaged on the Darien expedition.

The Aglatumati River has a course of about 12 miles from S. E., to N. W. Its mouth is about 50 ft. wide, and has a bar with very little water on it, but inside there is a depth of 8 ft. About a mile lup it is shallow enough in the dry season for one to wade along it knee deep; but in the rainy season the depth is considerable and the current very strong, and during floods it rushes along with great impetuosity and a roaring noise. At its mouth there are five bamboo huts, in one of which an old Indian, whose adopted name was Robinson, resided in 1850. On the arrival of the expedition the Indians abandoned them, and were occupied by some of the New Granadian soldiers and convicts brought from Carthegena by Colonel Codazzi, who kept them there in a state of total inaction. About three miles up, the Aglatumati receives a large tributary the (the Chucurti) on the left hand side, and on the point between them there is a rancho or shed for Indians going to or from the Sucubi or the Chueti to rest at. About two miles higher up it is joined by a small stream on the right hand, on the further bank of which is the village of Agla, consisting of about eighteen huts, with a population of about sixty. It had just been abandoned when Mr. Gisborne and party arrived there, the Indians having fled through fear of the white man. The principal man of the place was Juan Seva, named after a Malaga man, who traded for twenty-eight years from Carthegena to the Darien coast, but was so afraid of the Indians that he never once landed on it. On the lower bank of the above stream (Dos Bocas) there is a cacao plantation, from which a trail leads for about 300 yards to the foot of Mount Agla, which rises quite suddenly. Its summit is 926 ft. high, and very narrow, and ascent to it is rather steep. The descent is more gradual on the other side to its foot, where the Foreti unites with the Sucubti, the waters of which flow into the Pacific. This is the trail by which the Indians cross the Cordillera from Caledonia Bay to Sucubti village; by which the guided Vasco Nunez in 1513, the Bucaneers in 1680, and the Spanish Adjutant, Manuel de Nila Santa Ella, in 1788. It was by the same trail that Lieutenant Strain crossed on the 23d of January, and Mr. Gisborne, on the 7th of February 1854, and it was through Mount Agla that Mr. Gisborne, reported that a tunnel would be necessary. *But this is not the line that had been proposed by Dr. Cullen*, which as will be explained, is some miles to the N. W., of the trail.

At the mouth of the Aglatumati, from whence Vasco Nunez had started on his memorable journey, the settlement of Acla or Agla was founded by Gabriel de Rojas in 1514. It was fortified in 1516 by the orders of Pedrarias Davia, but was abandoned in 1533 for Nombre de Dios, whence the Spaniards opened a road through the bush to Panama. After Drake's expedition, the Atlantic terminus of the transit route was removed to Portobello, which was given up for Chagres, and that in turn, for Aspinwall or Colon, the terminus of the Panama Railroad. The Buccaneers, in 1680, under Basil Ringrose, Barty Sharp, William Dampier, and Richard Sawkins, with whom was the surgeon, Lionel Wafer, of London, made the Aglatumati mouth* the starting point of their expedition to the South Sea.

The same place was afterwards selected by General Arebalo for the erection of the fort of San Fernando de Carolinia, built in 1785 and abandoned in 1790, the site of which is indicated by a grove of cocoa-nut trees, and some tiles and bricks. A large quantity of the latter was once brought to Carthagena by Juan Seva, whose father-in-law built a house with them.

The Aglaseniqua is 20 ft. wide at its mouth, which has a bar with only 2 ft. of water on it. Inside the depth is 8 ft.; and half a mile up 5 ft. Its course from the mountain is short and direct, and it is totally uninhabitated. Both this river and the Aglatumati were traced up to their sources by different parties, in vain expectation of finding a low pass from them across the Cordillera.

Caledonia Harbor, a most secure haven, extends from a line drawn between Golden Island, Piedras Islet, and San Fulgencio Point to the Mangrove Cays to the west. Its S.E entrance is off and on, with four cables length in extent from edge to edge, and with from 9 to 12 fathoms depth on oaze; and further in, from 8 to 10 fathoms. Between the turn of the bank off Piedras Islet, and Caledonia Bay, the depth is from 7 to 15 fathoms; and the peice of sea which intervenes between this harbor and Port Escoces is of a good depth; but at a short mile S.E. by E. ½ E. (S. 55° E) from Piedras Islet the sea breaks when the breeze blows fresh. This harbor is sheltered from the winds and seas of both seasons, and has a good depth throughout. It is ¾ of a mile wide, and 2½ miles in extent to a narrow bar which seperates it from Sassardi Channel.

The point of San Fulgencio is salient, scarped, and clean. Immediately behind it rises an isolated hill, 200 ft. high, which Parsons named Mount Vernon. Just inland of it Captain Hollins bored a well through a stratum of dolomite or magnesian limestone.

Immediately inside, or to the N.W. of San Fulgencio Point, is an indent or little bay which falls inwards half a mile from a line drawn between San Fulgencio and its western point, and is a mile in length

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*Agla is the name of the mountain in which they rise; senquo means "little," and tumati "big." Agla signifies "bones of men."

† In 1764, some Frenchmen settled there, but were soon afterwards massacred by the Indians.

from S.E. to N.W. Its western side is bordered by some mangrove cays. This haven is so "snug" that it would be the most eligable place for the entrance of the canal. To adapt it for the passage of ships, it would be necessary to remove a few little shoals, and to deepen it to 30 feet for a quarter of a mile from the shore, in which space it has only 12 to 24 feet of water. Immediately westward of it, however, the depth close in shore is much greater. The inner part of its western extremity is in lat. 8° 53′ 45″ N., lon. 77° 43′ 30″ W.

At the N.W. end of Caledonia Harbor, 2½ miles N.W. of San Fulgencio Point, and in a line with the bar which separates it from the channel of Sassardi, a considerable river, with 8ft. of water at its mouth, falls into the harbor. This river traverses the valley between Agla and Sassardi, the parallel mountains of which the Cordillera, inland of Caledonia Harbor, consists. The water-shed between it and the Sucubti is the lowest summit level between the oceans, and, therefore, the careful examination of this river will be of the utmost importance in the survey about to be made.

Captain Marivault, of the French frigate Lucifer, who visit Caledonia Harbor in 1860, says of it: "This harbor is magnificent, and no one could desire a better point for the entrance of a ship canal. To the north of San Fulgencio Point the sea is perfectly calm."

The Channel of Sassardi is between the mainland and the three Sassardi islands, the aggregate length of which is 3¾ miles. Its entrance, ¾ of a mile wide, is between the point of the N.W. island and the Fronton of Sassardi. The latter is a round, scarped promontory surrounded by reefs close to the shore. The total length of the channel from the bar between it and Caledonia Harbor to its N.W. end is 3¾ miles. Commander Parsons says, in his "Sailing Directions:" "Sassardi harbour is a fine sheet of water, being 1½ mile long and ¾ of a mile wide, with an average depth of 5 fathoms throughout, excepting a few shoals nearly awash. It is joined to Caledonia Harbor by a narrow bar of 12 ft. This Mr. Gisborne bored, and found it could be easily removed, having penetrated into marl 15 ft. If cut through it would make a clear communication, with the advantage of a double entry to tue harbor." Into its N.W. extremity falls the small river Sassardi, at the mouth of which is the village of the same name, consisting of fifteen huts, with a population of about sixty Indians, the chief of whom was formerly a very old man, named John Bull, who was succeeded by Denis; the latter, as before stated, died in 1861. Between it and the river of Caledonia Harbor, the other streams fall into the channel, one of them being from 6 ft. to 10 ft. deep at its mouth, the water in which is salt.

The engineer will have a wide scope for selecting a locality for the entrance of the canal, which may open anywhere in Caledonia Harbor or the the channel of Sassardi. Parsons says: "There are several points which are favorable for the entry of a ship canal, having deep water in close proximity to the shore, with protection

outside." That which Dr. Cullen recommends is the bight N.W. of San Fulgencio Point. In Caledonia Bay and Port Escoces, there are also several points with from 6 to 9 fathoms, so near the shore that vessels might lie there as close to the land as they can in the Bosphorus; but they are out of the way and not sufficiently protected.

The rise of tide in the Atlantic harbor is 1 ft. 6 in. springs, 6 in. neaps. High water, full and change 11 h. 40 min.

PACIFIC HARBORS.—THE GULF OF SAN MIGUEL.

The harbors on the Pacific are even superior to those on the Atlantic side. The outer one is the magnificent Gulf of San Miguel, which is peculiarly adapted by its position and natural advantages to afford a safe and noble approach to the future canal. It runs far inland, has great depth, and capacity sufficient for a large fleet. Its entrance is just outside the Gulf of Panama, a great advantage, since ships bound to or from the Pacific would entirely avoid the difficult and baffling navigation of that gulf, already alluded to. It is 15 miles across between the points at its entrance, and its extent inwards, or to the N.E., is 22 miles. The least depth is 6 fathoms, and throughout the greatest part of its extent the soundings vary from 8 to 17 fathoms. The tide rises in it from 18 ft. to 24 ft., runs 5 knots an hour, and ebbs and flows N.E. and S.W. It is bounded on the N. by a promontory 2 miles from E. to W., the inner point being Cape San Lorenzo, and the west or outer one, Punta Brava, which is 78 miles S.E. by E. ½ E. of Panama. One mile S. of it is a shoal, called El Buey (the ox), which is 1¼ mile broad and ½ a mile long, with 6 fathoms close to it. Though out of the track of vessels, this should be removed as soon as the works on the canal shall have commenced. The boundary of the entrance on the S. is Cape Garachine, a bold headland, easily distinguishable from sea. Inside of it there is a bay of the same name, which offers facilities for careening; and behind it rises Mount Garachine, about 2500 ft. high, said to be rich in *oro de veta*, or gold in veins. The village of Garachine, inhabited by 162 negroes, is at the mouth of a little river in the bay. At the inner end of the latter the shores of the gulf approach, its width diminishing to 7 miles between Cape San Lorenzo and Morro Patino. It then increases to 12 miles, and again diminishes as far as Boca Chica and Boca Grande, the mouths of the Tuyra, the principal river of Darien. These discharge themselves, 22 miles from its entrance, into its eastern extremity, which is a bay formed by the islands of San Diego, and called Boca de Provincia, or Ensenada del Darien. There are some islands in the gulf, as Iguana, Cedros, San Diego, etc.; but they are all safe of approach, and have deep water all round them. The rivers Congo, Sucio, and other tidal creeks, Cucunate, Cupunati, Buenavista, Escudero, and San Miguel, fall into it on the N.; the Guaca, Taimita, Sambu, Pinuguilla, Garachini, and San Antonio, into Garachine Bay; and the Moguey and Sosogana, into Playa Guadarra, a bay inside of Morro Patino, on

the S.; whilst the Tuyra opens into it on the E. On the Sambu, at the sources of which gold has been found, there was a hacienda or estate belonging to Senor Bermudez, of Panama. At Taimita mouth there lived some years ago, like a hermit, a white man from Venezuela, named Fernando Melo. These and Garachine village are the only inhabited places. The Congo is the river which Wafer ascended on his return in 1861. From it Lacenta, the Indian chief, guided him to the Chepo, and thence across a very lofty range of the Cordillera to the mouth of the Conception, near San Blas Bay, and 60 miles N.W. of Caledonia Harbor. This gulf was named San Miguel by Vasco Nunez, because he discovered it on St. Michael's day, the 29th of September, 1513.

THE ESTUARY OF THE TUYRA OR INNER HARBOR OF DARIEN.

Inside the mouths of the Tuyra is the estuary formed by the united streams of the Tuyra and the Savana, which falls into it from the N. It is 8 miles in length, 4 miles wide opposite the Savana mouth, and has a depth of 13 fathoms at low water. Boca Chica and Boca Grande, by which it discharges itself, have each a depth of 12 fathoms at low water. This inner harbor is perfectly landlocked. The Emperor of the French, at the author's last audience with him, at the Palace of St. Cloud, on the 30th of October, 1859, was much struck wits its advantageous position and security, and suggested that it should be named "Port Interieur du Darien." Boca Chica Island, which separates the mouths, is a round, conical hill, about 250 ft. high, wooded to the summit, on which there are the ruins of a fort built about 1788. In 1849, Fernando, or Manchakala, a negro who left Pinogana in consequence of Mr. Hossack's claiming all his services in payment of a debt, settled on it with his sons and grandchildren, being there out of the reach of the corregidor. On the N. bank of the Tuyra, near the E. point of the Savana mouth, there was once a settlement called Escuchadero (the listening place or the sentinel's post). The scenery of the banks of the estuary is magnificent.

The above details will, perhaps, be sufficient to prove that the harbors at each end of the line have all the requisites of safe anchorages—security, depth of water, capacity, and facility of ingress and egress, and that they are admirably adapted for the termini of a grand interoceanic navigation. The soundings, bearings, etc., will be found in the "Survey of Oaledonia Harbor and Port Escoces,"* with sailing directions accompanying, by Commander Parsons, of H.M. surveying ship, Scorpion; and the "Survey of the Gulf of San Miguel," by Captain Kellet, of H.M.S. Herald, in Sheet 1, West Coast, Central America, both published by the Hydrographic-office of the Admiralty, in 1854.

(To be continued.)

* To be had at Stanford's, in Charing-cross; or Potter's, in the Poultry, price 2s. 6d.

ART. VIII.—TORNADOES.

We publish from an authentic source several papers on the subject of tornadoes which will be useful to our mariners at a time that navigation from and between the Gulf ports promises to become so important. These materials are indeed important to the department of Meteorology in the Federal Government, and Smithsonian institute to both of which we commend them.

Professor Maury will no doubt find in them a venification of his views, and we trust that in his new vocation he will not abandon the most important subject of navigation, but will conduct a department of nautical education for Southern youths, under which they may avail themselves of our great commercial advantages.

We give an authentic and practical report of a terrible windstorm which devastated the Southern country in 1801. It is premitted on the most undoubted evidence, having been communicated by an ancester of a gentleman well known to us and to the country. Col. J. P. H. Claiborne to whom we are indebted for the correspondence and narrative.—*Ed. Rev.*

TORNADO OF EIGHTEEN HUNDRED AND ONE.

INDIAN TERRITORY, CANTONMENT WILKINSON, March 14, 1801.

Col. John F. Hamtramck, Commanding etc., Pittsburg:

SIR—It is my unpleasant duty to report that about 4½ P. M, yesterday afternoon, an awful tornado visited over our encampment. It came from the southwest, and, passing obliquely over us, swept on to the northeast, accompanied with a deluge of rain. The largest trees were torn, or rather seemed to be lifted up and hurled ten and fifteen paces from where they had stood. Our camp equipage and clothing was scattered in every direction, much of it not yet recovered; and several of our boats were sunk, including the Quartermaster General's. My most painful duty is to report a list of the killed and wounded of the command.

ARTILLERY—*Wounded.*—1 Lieutenant, 1 Sergeant, 1 private.
FIRST REGULAR INFANTRY.—1 Lieutenant, 1 Quartermaster, 1 Sergeant, 1 Musician, 5 privates.
SECOND REGULAR INFANTRY.—I Sergeant .killed. *Wounded*—1 Captain, 2 Lieutenants, 1 Quartermaster Sergeant, 1 Sergeant, 15 privates.

NAMES OF THE OFFICERS WOUNDED.

Captain Lukens, badly.
Lieutenant Hooke, badly.
Lieutenant Webster, Lieutenant Leyborn, Lieutenant Sheras.
1 woman killed and several wounded.

I have the honor to be,
Very respectfully your obedient servant,
FERDINAND L. CLAIBORNE,
Capt. 1st Reg. U. S. Inft'y, Officer of the Day.

TORNADOES OF THE GULF AND ELSEWHERE.

We extract the following from an English periodical. It will be found a paper every way interesting to the Southern and to the tropical reader:

"Earthquakes have long been esteemed" says the article quoted, the foremost place among the agents of destruction. But this judgment must be reversed when we consider the earthquakes—though so fearfully and suddenly destructive—yet occur but seldom compared with wind storms, while the effects of a real hurricane are scarcely less destructive than those of the sharpest shocks of earthquake. After ordinary storms, long miles of the sea coast are strewn with the wrecks of so many once gallant ships, and with the bodies of their hapless crews. In the spring of 1866 there might be seen at a single view from the heights near Plymouth twenty-two shipwrecked vessels, and this after a storm, which, though severe, was but trifling compared with the hurricanes which sweep over the torrid zones, and thence, scarcely diminished in force, as far north sometimes as our own latitudes. It was in such a hurricane that the "Royal Charter" was wrecked, and hundreds of stout ships with her. In the great hurricane of 1780, which commenced at Barbadoes and swept across the whole breadth of the North Atlantic, fifty sail were driven ashore at the Bermudas, two line-of-battle ships went down at sea, and upwards of twenty thousand persons lost their lives on the land. So tremendous was the force of this hurricane (Captain Maury tells us) that the "bark was blown from the trees, and the fruits of the earth destroyed; the very bottom and depths of the sea were uprooted—forts and castles were washed away, and their great guns carried in the air like chaff; houses were raised, ships wrecked, and the bodies of men and beasts lifted up in the air and dashed to pieces in the storm"—an account, however, which (though doubtless faithfully rendered by Maury from the authorities he consulted) must perhaps be accepted *cum grano* and especially with reference to the great guns carried in the air "like chaff."*

In the gale of August, 1782, all the trophies of Lord Rodney's victory, except the "Ardent," were destroyed, two British ships-of-the-line foundered at sea; numbers of merchantmen under Admiral Graves' convoy were wrecked, and at sea alone three thousand lives were lost.

But, quite recently, a storm far more destructive than these swept over the Bay of Bengal. Most of our readers doubtless remember the great gale of October, 1864, in which all the ships in the harbor at Calcutta were swept from their anchorage, and driven one

*We remember to have read that in this hurricane guns which had long lain under water were washed up like mere drift upon the beach. Perhaps this circumstance grew gradually into the incredible story above recorded.

upon another in inextricable confusion. Fearful as was the loss of life and property in Calcutta harbor, the destruction on land was greater. A vast wave swept for miles over the surrounding country; embankments were destroyed, and whole villages, with their inhabitants, swept away. Fifty thousand souls it is believed perished in this fearful hurricane.

The gale which has just ravaged the Gulf of Mexico adds another to the long list of disastrous hurricanes. As we write, the effects produced by this tornado are beginning to be made known. Already its destructiveness has become but too certainly evidenced.

The laws which appear to regulate the generation and the progress of cyclonic storms are well worthy of careful study.

The regions chiefly infested by hurricanes are the West Indies, the southern parts of the Indian Ocean, the Bay of Bengal, and the China seas. Each region has its special hurricane season.

In the West Indies, cyclones occur principally in August and September, when the southeast monsoons are at their height. At the same season the African southwesterly monsoons are blowing. Accordingly there are two sets of winds, both blowing heavily and steadily from the Atlantic, disturbing the atmospheric equilibrium, and thus in all probability generating the great West Indian hurricanes. The storms thus arising show their force first at a distance of about six or seven hundred miles from the equator, and far to the east of the region in which they attain their greatest fury. They sweep with a northwesterly course to the gulf of Mexico, pass thence northwards, and so to the northeast, sweeping in a wide curve (resembling the letter U placed thus ⊂) around the West Indian seas, and thence traveling across the Atlantic, generally expending their fury before they reach the shores of Western Europe. This course is the storm-track (or storm-⊂ as we shall cal it). Of the behavior of the winds as they traverse this track, we shall have to speak when we come to consider the peculiarity from which these storms derive their names of "cyclones" and "tornadoes."

The hurricanes of the Indian Ocean occur at the "changing of the monsoons." "During the interregnum," writes Maury, "the fiends of the storm hold their terrific sway." Becalmed, often, for a day or two, seamen hear moaning sounds in the air, forewarning them of the coming storm. Then, suddenly, the winds break loose from the forces which have for a while controlled them, and "seem to rage with a fury that would break up the fountains of the deep."

In the North Indian seas hurricanes rage at the same season as in the West Indies.

In the China seas occur those fearfull gales known among sailors as "typhons," or "white squalls." These take place at the changing of the monsoons. Generated, like the West Indian hurricanes, at a distance of some ten or twelve degrees from the equator; typhoons sweep in a curve similar to that followed by the Atlantic storms around the East Indian Archipelago, and the shores of China to the Japanese Islands.

There occur land-storms, also, of a cyclonic character in the valley of the Mississippi. "I have often observed the paths of such storms," says Maury, "through the forests of the Mississippi. There the track of these tornadoes is called a 'wind-road,' because they make an avenue through the wood straight along, and as clear of trees as if the old denizens of the forest had been cleared with an axe. I have seen trees three or four feet in diameter torn up by the roots, and the top, with its limbs, lying next the hole whence the root came." Another writer, who was an eye witness to the progress of one of these American land-storms, thus speaks of its destructive effects. "I saw, to my great astonishment, that the noblest trees of the forest were falling into pieces. A mass of branches, twigs, foliage and dust moved through the air, whirled onwards like a cloud of feathers, and passing, disclosed a wide space filled with broken trees, naked stumps, and heaps of shapeless ruins, which marked the path of the tempest."

And here a remarkable circumstance attracts our notice, the consideration of which points to the mode in which cyclones may be conceived to be generated. It is found, by careful study of different observations made upon the same storm, that cyclones in the northern hemisphere invariably sweep round the onward traveling vortex of disturbance in one direction. If we place a watch-face upwards upon one of the northern cyclone regions in a Mercator's chart, then the motion of the hands is contrary to the direction in which the cyclone whirls; when the watch is shifted to a southern cyclone region, the motion of the hands takes place in the same direction as the cyclone motion. This peculiarity is converted into the following rule-of-thumb for sailors who encounter a cyclone, and seek to escape from the region of fiercest storm: *Facing the wind, the centre vortex of the storm lies to the right in the northern, to the left in the southern hemisphere.* Safety lies in flying from the centre in every case save one—that is, when the sailor lies in the direct track of the advancing vortex. In this case, to fly from the centre would be to keep in the storm-track; the proper course for the sailor when thus situated is to steer for the calmer side of the storm-track. This is always the outside of the ⊂ as will appear from a moment's consideration of the spiral curve traced out by a cyclone. Thus, if the seaman scud before the wind—in all other cases a dangerous expedient in a cyclone*—he will probably escape unscathed. There is, however, this danger, that the storm-track may extend to or even slightly overlap the land, in which case scudding before the gale would bring the ship upon a lee-shore. And in this way many gallant ships have, doubtless, suffered wreck.

The danger of the sailor is obviously greater, however, when he is is overtaken by the storm on the inner side of the storm-⊂. Here he has to encounter the double force of the cyclonic whirl and of

*A ship by scudding before the gale may—if the captain is not familiar with the laws of cyclones—go round and round without escaping. The ship "Charles Heddle" did this in the East Indies, going round no less than five times.

the advancing storm system, instead of the difference of the two motions, as on the outer side of the storm-track. His chance of escape will depend on his distance from the central path of the cyclone. If near to this, it is equally dangerous for him to attempt to scud to the safer side of the track, or to beat against the wind by the shorter course, which would lead him out of the storm-[illegible] on its inner side. It has been shown by Colonel Sir W. Reid that this is the quarter in which vessels have been most frequently lost.

But even the danger of this most dangerous quarter admits of degrees. It is greatest where the storm is sweeping round the most curved part of its track, which happens in about latitude twenty-five or thirty degrees. In this case, a ship may pass twice through the vortex of the storm. Here hurricanes have worked their most destructive effect. And thus it happens that sailors dread, most of all, the part of the Atlantic near Florida and the Bahamas, and the region of the Indian Ocean which lies south of Bourbon and Mauritius.

To show how important it is that captains should understand the theory of cyclones in both hemispheres, we shall here relate the manner in which Captain J. V. Hall escaped from a typhoon of the China seas. About noon, when three days out from Macao, Captain Hall saw "a most wild and uncommon looking halo round the sun." On the afternoon of the next day, the barometer had commenced to fall rapidly; and though, as yet, the weather was fine, orders were at once given to prepare for a heavy gale. Towards evening, a bank of cloud was seen in the southeast, but when night closed the weather was still calm and the water smooth, though the sky looked wild and a scud was coming on from the northeast. "I was much interested," says Captain Hall, "in watching for the commencement of the gale, which I now felt sure was coming."

But the most remarkable point of Captain Hall's account remains to be mentioned. He had gone out of his course to avoid the storm, but when the wind fell to a moderate gale he thought it a pity to lie so far from his proper course, and made sail to the northwest. "In less than two hours the barometer again began to fall and the storm to rage in heavy gusts. He bore again to the southeast, and the weather rapidly improved." There can be little doubt that but for Captain Hall's knowledge of the law of cyclones, his ship and crew would have been placed in serious jeopardy, since in the heart of a Chinese typhoon a ship has been known to be thrown on her beam ends when not showing a yard of canvas.

If we consider the regions in which cyclones appear, the paths they follow, and the direction in which they whirl, we shall be able to form a guess at their origin. In the open Pacific Ocean (as its name, indeed, implies) storms are uncommon; they are unfrequent also in the South Atlantic and South Indian Oceans. Around Cape Horn and the Cape of Good Hope, heavy storms prevail, but they are not cyclonic, nor are they equal in fury and frequency, Maury tells us, to the true tornado. Along the equator, and for several

degrees on either side of it, cyclones are also unknown. If we turn to a map in which ocean currents are laid down, we shall see that in every "cyclone region" there is a strongly marked current, and that each current follows closely the track which we have denominated the storm-track. In the North Atlantic we have the great Gulf stream, which sweeps from equatorial regions into the Gulf of Mexico, and thence across the Atlantic to the shores of Western Europe. In the South Indian Ocean there is the "south equatorial current," which sweeps past Mauritius and Bourbon, and thence returns towards the east. In the Chinese Sea, there is the north equatorial current, which sweeps round the East Indian Archipelago, and then merges into the Japanese current. There is also the current in the Bay of Bengal, flowing through the region in which, as we have seen, cyclones are commonly met with. There are other sea currents besides these which yet breed no cyclones. But we may notice two peculiarities in the currents we have named. They all flow from equatorial to temperate regions, and, secondly, they are all "horse-shoe currents." So far as we are aware there is but one other current which presents both these peculiarities, namely—the great Australian current between New Zealand and the eastern shores of Australia. We have not yet met with any record of cyclones occuring over the Australian current, but heavy storms are known to prevail in that region, and we believe that when these storms have been studied as closely as the storms in better known regions, they will be found to present the true cyclonic character.

Now, if we inquire why an ocean current traveling from the equator should be a "storm breeder," we shall find a ready answer. Such a current, carrying the warmth of intertropical regions to the temperate zones, produces in the first place, by the mere difference of temperature, important atmospheric disturbances. The difference is so great, that Franklin suggested the use of the thermometer in the North Atlantic Ocean as a ready means of determining the longitude, since the position of the Gulf stream at any given season, is almost constant.

But the warmth of the stream itself is not the only cause of atmospheric disturbance. Over the warm water vapor is continually rising; and, as it rises, is continually condensed (like the steam from a locomotive) by the colder air round. "An observer on the moon,' says Captain Maury, "would, on a winter's day, be able to trace out by the mist in the air, the path of the Gulf stream through the sea." But what must happen when vapor is condensed? We know that to turn water into vapor is a process requiring—that is, *using up*,—a large amount of heat; and, conversely, the return of vapor to the state of water *sets free* an equivalent quantity of heat. The amount of heat thus set free over the Gulf stream is thousands of times greater than that which would be generated by the whole coal supply annually raised in Great Britain. Here, then, we have an efficient cause for the wildest hurricanes For, along the whole of the Gulf stream, from Bemini to the Grand Banks, there is a channel of

heated—that is, *rarefied air*. Into this channel the denser atmosphere on both sides is continually pouring, with greater or less strength, and when a storm begins in the Atlantic, it always makes for this channel, "and, reaching it, turns and follows it in its course, sometimes entirely across the Atlantic." "The southern ports of America and Africa have won for themselves," says Maury, "the name of 'the stormy capes,' but there is not a storm fiend in the wide ocean can out-top that which rages along the Atlantic coasts of North America. The China seas and the North Pacific may vie in the fury of their gales with this part of the Atlantic, but Cape Horn and the Cape of Good Hope cannot equal them, certainly in frequency, nor do I believe, in fury." We read of a West Indian storm so violent, that 'it forced the Gulf stream back to its sources, and piled up the water to a height of thirty feet in the Gulf of Mexico. The ship Ledbury Snow attempted to ride out the storm. When it abated, she found herself high up on the dry land, and discovered that she had let go her anchor among the tree tops on Elliott's Key."

By a like reasoning we can account for the cyclonic storms prevailing in the North Pacific Ocean. Nor do the tornadoes which rage in parts of the United States present any serious difficulty. The region along which these storms travel is the valley of the great Mississippi. This river at certain seasons is considerably warmer than the surrounding lands. From its surface, also, aqueous vapor is continually being raised. When the surrounding air is colder, this vapor is presently condensed, generating in the change a vast amount of heat. We have thus a channel of rarefied air over the Mississippi valley, and this channel becomes a storm-track like the corresponding channels over the warm ocean currents. The extreme violence of land storms is probably due to the narrowness of the track within which they are compelled to travel. For it has been noticed that the fury of a sea-cyclone increases as the range of the "whirl" diminishes, and *vice versa*.

There seems, however, no special reason why cyclones should follow the storm-track in one direction rather than in the other. We must, to understand this, recall the fact that under the torrid zones the conditions necessary to the generation of storms prevail far more intensely than in temperate regions. Thus the probability is far greater that cyclones should be generated at the tropical than at the temperate end of the storm-track. Still it is worthy of notice, that in the land-locked North Pacific Ocean, true typhoons have been known to follow the storm-track in a direction contrary to that commonly noticed.

The direction in which a true tornado whirls is invariably that we have mentioned. The explanation of this peculiarity would occupy more space than we can here afford. Those of our readers who may wish to understand the origin of the law of cyclonic rotation should study Herschel's interesting work on Meteorology.

The suddenness with which a true tornado works destruction

was strikingly exemplified in the wreck] of the steamship "San Francisco." She was assailed by an extra tropical tornado when about 300 miles from Sandy Hook, on December 24, 1853. In a few moments she was a complete wreck! The wide range of a tornadoes destructiveness is shown by this, that Colonel Reid examined one along whose track no less than 110 ships were wrecked, crippled or dismasted.

ART. IX.—CO-OPERATION IN ENGLAND.

[From the London Times.]

The capital owned by the English industrial class is one of the surprising items of the times, and it is surprising that the owners thereof have never hitherto realized what a power they possess, and how much by a wider application than has hitherto been given to co-operative effort, they might, almost at one stride, change for the better most of the material, social, and economic circumstances by which they are now influenced. The truth is just beginning to dawn upon the most sagacious of their leaders and representatives here, that there waits an immense capital owned by themselves—the toilers and pioneers in a large degree—which is now made much more beneficial to the classes hitherto antagonistic, than it is to the real owners thereof. The lesson to be deduced from the statistics which I am about to give, ought by no means to be lost in the United States, where associations as an instrument of self help is just beginning its real development. It needs only avoid the mistakes of its progenitors and types here, in order to reap even great results in a much shorter period of time.

It is of course true that co-operation is not a new idea. But its practical realization in the matter of supply at least, will not in England go back of 1843, while in truth its great development has taken place within the last 15 years. I have gathered from a great variety of authentic sources, many most valuable statistics, which I shall insert here as a means of elucidating the truth—that the industrial class everywhere have, by a means of wise use of their combined capital, the best lever they could ask to lift themselves from the slough of poverty in which a larger portion of them are struggling. Lying before me are the returns for 1866, of Mr. J. Tidd Pratt, the register of friendly, benefit, building, provident, and other forms of associative self help, which the legislation of Great Britain recognizes as legitimate. It is, doubtless, true that the class rulers of this empire did not realize when they passed the acts under which this great net work of association effort has spread itself so widely, what a power they were creating, or how expansive would be the principle embodied in the series of acts, of which the "Industrial and Provident Societies act," of 1863, that of "Limited Liability," and a recent one relating to industrial partnerships—are most favorable illustrations.

As it is, the result of co-operative supply associations have attracted such attention and developed the means by which the industrial class can in reality become their own capitalists, it will, perhaps, be well to show the present condition of this movement.

According to the return mentioned, it appears that there have been registered up to December 31, 1865, in England, Wales, and Scotland, 752. Returns have been received from 436: 76 have been dissolved, and 240 have neglected to send the annual statement. The law requires this, and imposes a penalty for non-compliance, but the Registrar is left without the funds and machinery to make this effective. Since the date named 251 more societies have been certified. This makes, in all, 1910 co-operative societies, of which it is evident, by the returns, 578 have not been successful, or at least not so much so as to make them desirous of stating their success. Some of these societies, engaged in manufacturing, have purposely refrained from sending in returns, though they claim a moderate degree of success. The business commonly carried on is that of grocers and provision dealers. One-fourth, perhaps, also sell dry goods, boots, shoes, clogs (these latter articles are chiefly sold in Lancashire), and similar articles. There are eleven flour mill associations registered. They are all in the cotton manufacturing districts. Among the trades there is one operative wire factory, one shuttle-making, one alkali works, one lock maker, at Wolverhampton, one co-operative cotton factory, and hand loom weavers at Norwich, two masons' and builders', both in Yorkshire, one operative boot and shoe factory, one operative farrier's shop, and one cabinet makers'—these latter are in London. Of the 438 associations whose printed returns attest their success, 427 are in England, 9 are in Wales and 2 in Ireland. Of the English ones, Lancashire and Yorkshire—the principle manufacturing centers—have all the larger associations, and nearly one-half of the entire number of the successful ones. Lancashire reports 114, Yorkshire 101; a total of 215. London reports in all 104; most of which are small grocery stores. Among the associations is one farm, having 27 members, and clearing a small margin of profit. It is situated in Cheshire. The membership numbered at the close of 1866, 173,661 persons with a share capital of £1,048,096, and a loan capital of £118,294; trade liabilities, £334,561; assets and property, £1,009,849, and balance of cash on hand, £192,803. This makes a total of £2,603,332, which if we estimate exchange at $7, will, in American currency, give a total value of $18,223,323, or about $112 to each share-holder if an equal division was made. Thirty of these associations sold goods during the year to an amount exceeding £20,000 each; six to an amount exceeding £100,000. The Rochdale "Equitable Pioneers," whose society meet on the 28th instant, to open new store buildings, had, in 1866, a membership of 6,246, and a share capital of £97,489. It sold groceries, etc., to the amount of £249,122 cash, and realized a profit of £31,931. The capital of these associations is generally issued in shares at £4

each. Some few have £5 shares. Nearly all do a cash business, less than two score grant credit members within the amount of their paid up capital, while a few give credit to a larger extent. To the co-operative movement is almost altogether due the destruction of the credit system which by means of "trunk shops" and "tallymen" eat up the entire earnings of the working people. The entire sum received for goods sold during 1866 by these societies amounted to £4,455,596. The expenses amounted to £235,454, and the realized profit was £376,294, or $2,634,078. This is certainly a most favorable exhibit, and taking all the associations registered and operating, there cannot be less than £3,000,000, or about $21,000,000 invested mainly by the working class of Great Britain in this manner. This is, of course, among the most direct and profitable investments they have. There is no means within my reach at this date of estimating that which is invested by them directly in the new industrial partnership now growing so rapidly in this country. I shall make especial inquiries to ascertain during my visit to the manufacturing centers.

From the foregoing it can be in some degree ascertained what wisely directed efforts and self-help will accomplish. But the result will be more surprising when we come to add up the capital possessed by movements based on the principle of associations.

Great Britain is full of societies for aiding the members when sick, etc., known as "Friendly and Benefit Societies." At least, eighty per cent of the membership of these organizations may be included within a recent definition of the "working class," as given by one of the ablest writers, to the effect that the terms "working class" "working men" means those who work, chiefly with their muscles, for wages, and maintain themselves thereby. It is quite difficult to obtain any accurate estimate of the capital of these associations. Mr. J. Tidd Pratt's return of last year shows returns from 10,345 societies, with a membership of 1,374,425, and funds to the amount of £5,362,028. There were registered, in all, 22,834 societies, but the number given is all whose returns were sent in before the report was issued. There are also many small associations not registered at all. Probably there are 30,000 such societies as are referred to in the United Kingdom. In 1862, Mr. Charles Hardwick (a good authority) stated before the Conges International de Bienfiasance, that the entire Friendly Societies of Great Britain possessed a reserved fund of $20,000,000 sterling, or about $140,000,000 American. William Watkins, a writer on these questions, and who is engaged as Actuary, etc., in a recent pamphlet to which I shall have occasion to refer again, estimates the reserved capital at £25,000,000 sterling. Their annual income cannot be less than £5,000,000 sterling. The two largest benevolent orders—Odd Fellows Foresters—alone have securely invested more than one-fourth of this amount. It is quite safe to presume that the various mutual and friendly societies and orders here possess a capital of not less than $150,000,000.

The Building and Freehold Land Societies are another mode, and a very beneficial one, in which the savings of the industrial classes become coined into valuable property. Like the co-operative stores, the aggregate returns of which are given above; capital used by these organizations brings back its profits to those directly interested, and does not go to swell the coffers of those who have as a rule opposed every step forward taken by the English masses. There is reported to be in England and Wales alone, 20,000 building societies, into which about £11,000,000 have been paid. Eight millions of this has been up to this time invested in real property—that is in dwellings for those who belong to one or the other forms under which these associations act. About seventy per cent of the membership belong to the wage class.

The same proportion will hold good with regard to the deposits in the savings banks, whether they are trustee banks or the more recent government organizations—the postoffice savings bank. In the former class, the deposits in 1866 reached £33,840,096 while the postoffice received about £8,000,000; a total of £41,840,096, or in Americon currency, of $302,880,672.

It is estimated, beside the above societies and accumulations, that the Trades Unions of Great Britian possess a reserved fund and annual income of not less than £7,000,000 sterling, for which no protection is given under English law.

A brief recapitulation will show the enormous money accumulated by the efforts, and at present under the control of the English working classes.

The Co-operative Supply Associations represent a capital and property of the value of	£2,603,332
Friendly and Benefit Societies	25,000,000
The Building Societies	11,000,000
Savings Banks	41,840,000
Trade Societies	7,000,000
Total	£87,443,332

or about $542,103,324 American money. This enormous capital, which is, without a doubt, under rather than overestimated, is invested, excepting, of course, the £13,603,332, which are invested in the co-operative stores and building societies, in government securities at 2½ per cent. and thereby nearly doubles the available capital of the commercial, banking and exchanging class. Perhaps one-third is in the hands of private capitalists and employers—as the brewers, for instance, who own most of the public houses in which the friendly societies are held, or employers whose workmen, having formed a benefit society, intrust their funds to his hands. So it is true that in the contest, (altogether unnecessary as I believe) which takes place between employed and employers, it is not an uncommon thing for the latter to be aided by the accumulations of the employed. The funds in the savings banks are all required to be invested in government securities, so that the poor of Great Britain were the creditors of the empire to the extent of over £41,000,000

during the year 1866, while the use of the interest was in a great part turned to the benefit of the class who manage savings banks.

Among the many questions of interest discussed by the International Labor Congress recently held at Lausanne was one relating to the use of this capital, so as to obtain the largest amount of economic benefit therefrom. Under the inspiration of an English Delegate, Mr. Walton, the following resolution was adopted upon the subject:

"1. The congress urges upon the members of the International Workingmen's Association in the various countries the necessity of using their influence to induce trades societies to apply a portion of their reserve funds to the establishment of co-operative productive concerns as the best means of utilizing the credit which they now give to the middle classes and governments for the purposes of their own emancipation.

"2. Those societies who do not deem it expedient to embark in co-operative production of their own, ought, by means of their funds, to facilitate the establishment and carrying on of such concerns, and use efforts to establish a system of credits based upon the securities and means of those who invoke its aid, and to found a system of co-operative banking which would enable them to issue promissory notes irrespective of metalic reserves."

Mr. Watkins, to whom allusion has already been made, broaches in his pamphlet what seems to be an excellent plan by which trade society funds, as such, can be used to aid co-operative and associative efforts. Here, as before stated, these unions have no security beyond the honesty of their chosen officers. If their accumulative capital was loaned to a provident association (registered under the law, and whose trustees are required to give bonds), formed to buy freehold property and build dwellings for the members, they could be secured by mortgage on the property, obtain five per cent. interest where they now get but one-half, and while doing this as an organization, their members being also the persons interested in the provident society would be getting good dwellings and paying for them in the same method they now pay rent. Of course the principle is capable of indefinite expansion. It is easy to apply it under judicious management in the United States, where there is not nor can be any such vexing restraints as exists here around Trades Union efforts.

ART. X.—SALAD MAKING.

The special charm of a salad, the poetry of it, in fact, is hot enough to cook a chop; when the paint on the shop door is blistering, and policemen's brains are grilling like toast cheese inside their helmets; when cabmen, very choloric and short in temper, keep taking blue handkershiefs out of their hats and dashing them in again, as if they were trying to knock out the crowns, and street apple-

women fall asleep, totally heedless of custom or urchin thieves; when shop boys drip pattens on the pavement with their water cans, and splash any person if they can safely; when Clapham omnibus drivers are thirstier than usual, and drain off stout faster than their smoking horses suck up the pailsful of water held up to them by the hostlers at the half-way house; when in the West End squares pleasant music oozes from open windows and Venetian blinds; when Covent Garden is one vast flower bed, and smells Bucklersbury at "simple time;" when dirty-looking men, either burglars tired of the night's prowl, or idle mechanics, go to sleep face downwards in the parks, and give them the appearance of battle fields, and the Achilles, though not over clothed, is so hot that he'd scorch you if you touched him—then, I say, it is a pleasure to retire into some old fashioned tavern—the Mitre, where Dr. Johnson planned with Boswell his venturous trip to the Hebrides; or the Cheshire Cheese, which Goldsmith used to frequent—go and refresh your body with a steak, and your eyes with a salad. As you stir up the moist foliage, the fatigue and dust and heat and stuffiness of London pass from you, and there arise thoughts of

> Flora and the country green,
> Dance, and Provencal song, and sunburnt mirth.

and of

> Grass, the thickest, and the fruit tree wild.
> White hawthorn, and the pastoral eglantine.
> Fast fading violets covered up in leaves.

At such times I fancy myself again in my own country garden beating the dark earth from the fibrous root of the portly lettuces, whose large hearts have almost burst the bass zones that bind them, drawing carefully my pink radishes, or lifting out tenderly the young onions with heads scarcely bigger thon bodkins; if I divest myself of culinary thoughts, I imagine myself lazily lying on my back, buried in flowering grass, just ripe for the scythe, watching a foot above me an orange-shelled lady-bird climbing a grass stalk, or some little blue butterflies flickering round a honey-sweet clover-flower.

The old French proverb maker, who said—

> Qui vin ne boit apres salade
> Est en danger d'etre malade,

had many other wise saws relating to food, of more or less value, such as,

> Old fish, old oil, and old friends are best,
> Veal, fowls, and fish fill the churchyards,
> Take the middle of wine, the top of oil, and the bottom of honey.
> After pears, wine or the priest.
> After melon, wine is a felon,
> You must drink as much after an egg as after an ox.

Of all salads lobster salad is the most picturesque. The red skinned flesh of the creature contrasts exquisitely (was surely intended to contrast exquisitely) with the tender April green of the virgin lettuce. To parody Brillat Saverin, may I not say, powerful kings, invincible paladins, friends of Nero and Heliogabalus, how I

pity you, for you did not know the lobster salad! The very scarlet of the lobster shell gives one an appetite. With what a keen pleasure one cleaves the crimson plate armor of the sea monster through with one, steady, strong pressure from head to heel; from his little black prominent beads of eyes to the last brown filament of his fan-like tail. Gently as a coin from a mould, comes the plastic flesh. We toss it into the bed of lettuce leaves, and prepare for the sauce. We make it like Mrs. Rundall, but with this difference, that we put more oil and less vinegar, and we do not forget essence of anchovy, mushroom ketchup, hard boiled eggs, or a little mollifying cream.

Mashed potato, rubbed down with cream, mustard and salt is no bad substitute for egg, and imparts to a salad a new and not unpleasing flavor. Tomatoes — those warm orange-lobed tropical "pommes d'amour"—are excellent, too, in salad. Their rich flavored pulp and skin, warm as capsicums, are incomparable, if well spread and diffused on a proper friendly footing with the other ingredients. French beans, too, the most delicate of vegetables, make a salad of great merit. You must boil the beans as usual for the table, then mix a dressing in the following proportions:

Four mustard ladles of mustard.
Four salt ladles of salt.
Three dessert spoonfuls of essence of anchovy.
Four dessert spoonfuls of mushroom ketchup.
Three dessert spoonfuls of the best Italian oil.
Twelve dessert spoonfuls of vinegar.
Three unboiled eggs.

The Spanish use pomegranates in their salads. For myself I dislike that fruit, with the shell like baked clay. The Arab poets may compare the lips of those they love to the rosy, fleshy pips of the pomegranate, but to my mind the acid is of an uninteresting, insipid and rather disagreeable character. Perhaps they are grateful to men choked with the dusty heat of a Spanish summer, but when one can pick from the green parent tree an orange just yellowing, who would eat the poor watery fruit of Granada? Still, to the epicure, eager for novelty, the thing is worth a trial—at the worst it is only a bowl of salad to be thrown away; for, depend upon it, servants won't eat what their masters dislike.

In the time of the Regency, and old French emigre of taste and refinement, an epicurean marquis, who had, perhaps, often supped at the Petit Trianon with the thoughtless, laughing ladies of poor Marie Antoinette, or reveled with Egalite in the Palais Royal, on dishes rarer and stranger than even nightingales' brains, or stewed canaries—attended parties at the West End as a preparer of salads. He carried with him a mahogany case full of sauces and essences, and the result was — well only a Spaniard could express it by joining the tips of his five jointed fingers, and then blowing them a part with a kiss—

"Whew! Perfection!"

The old emigre made a fortune, and returned with the Bourbons to regenerate the French with a new salad mixture. Ventre de St. Gris! that a man would have deserved a London statue as much as the Duke of York or Jenner had he only left us his recipe.

If tradition be correct, the Roi da la salade constructed his finest work somewhat on these lines:

He chopped up three anchovies with a little shallot and some parsley; these he threw into a bowl, with a little mustard and salt, two table spoonfuls of oil, and one brimming over of vinegar; when madly mixed, he added to these extremely thin short slices of Westphalia ham, or the finest roast beef, which he first steeped in the seasoning. He then covered the bowl, and in three hours the salad was fit for the table. He garnished with parsley and a few waifers of bacon. Perfection is not the word. A dying man could get up to taste that salad. Let that salad be the touchstone of all French cooks. Let it be the first question to aspirants, "do you know how to construct ('make' is a word degrading to the grand science)—do you know, monsieur, how to construct the Salade des Hesperides!" If the wretch says "No," look down again on your blotting paper, bow and glance at the door. As the Count de M. once said to Talleyrand of a candidate for a secretaryship:

"I have no great opinion of this man's mind; he has never eaten pudding a le Richelieu, and he does not know the cutlet a la Soubise." As Brilat Saverin says, profoundly, "it is chiefly men of intellect who hold good eating in honor; the herd is not capable of a mental operation which consists in a long sequence of appreciations and many severe decisions of the judgment."—*All the Year Round.*

ART. XI.—CHEAP FREIGHT RAILROADS.

BY PROFESSOR C. G. FORSHEY.

In the March number of the REVIEW, I endeavored to show that Railroads were too heavy and too expensive, in their construction; and that a reduction of nearly fifty per cent. of both weight and cost, must tend to cheapen freights.

I intentionally left much for the inference of the intelligent Engineer, and practical economist; as for example:

If rails, and rolling stock will last four times the life of our present roads, the present might be reduced.

For steel rails and rolling stock, supposed to last four times the life of iron, and requiring only half the force to move the wheels will accomplish four times the work at the same charge, or the actual work will be done at one-fourth the rate.

At this point it becomes necessary to examine what appears to us the crude and extravagant pretentions and assumptions of the "Anti-Monopolists."

CHEAP FREIGHT RAILWAY LEAGUE.

As signified in a former number, the cheapening of freights is a desideratum, "second in importance only to the productive interest of the country." But to cheapen freights, we must cheapen the vehicles and routes of transportation. This I have shown practicable; but I have not shown how the total amount of freights can be "increased *tenfold*;" nor if so increased, that it would not wear out with tenfold the rapidity. Nor shall I attempt so absurd a task. The freights of the country seeking market over roads, cannot be largely nor promptly multiplied.

They amount to just so much; but would be some what increased by cheapening freights. But we must not forget that the industry of the country cannot be made "tenfold" more productive, because freights are cheap. A few additional articles might be put upon the rails; such as iron ores, timber, lime, sand, shells, and rocks. But this would affect the durability of rails and rolling stock. The special increase in tonnage upon our roads would nearly all be of such character as to destroy the roads with much additional force, whatever their material.

This will be absolutely unavoidable.

Nor can it be at all alleged that the roads at present in existence and managed (or *mismanaged* if you will) as they now are, have ever been taxed to their capacity. Most of them, have made no approach to it. How then can we account for the extravagant, and rekless remark of Mr. Sherwood in his Cincinnati address, that "the unequal rates of speed, destroyed nine-tenths of the freight power of the Railway." We further pressed the matter by illustration, that 500 trains a day might be accommodated at a moderate and uniform rate, whereas fifty trains a day would be the full capacity at present." Very few roads have occasion for fifty trains. A large majority have not freights for more than ten. And this criticism, if just or well founded, is merely an argument for reforming the time tables; a matter probably as well understood by McCallum, Latrobe, and other great engineers, and superintendants, as by the best amateur Railway men of the times.

It is not one of the great matters crying for reform, the difficulty of providing for trains of freight; and it were the allegation that the capacity is reduced nine-tenths of the whole, by stupidity and ignorance of Railroad men, is not very modest: but it is very extravagant and hyperbolic.

A proposition to improve the time tables, on the roads of greatest traffic, say those connecting the great cities, those leading from the coal mines of Pennsylvania and Maryland to the cities, would be acceptable, provided its assumptions were not too arrogant. *Ten per cent.* improvement, instead of 1000 per cent. might command attention.

The "Anti-Monopoly" feature is not very clear. We have no

distinct idea of the meaning of "monopoly," in the present railway system. Each railway commands all the freight it can get; and whenever its profits will justify it, there are new lines constructed; until the temporary monopoly is broken up. The greater fault has been heretofore, that the capital really invested in the construction of roads, has been without revenue; because of the great rivalry of other lines both of rail and water. The monopoly, moreover, would not be much defeated or abridged by the interference of the Government, on behalf of a few new lines, to the destruction of many of the old ones.

As a whole I am driven to pronounce this portion of the name of the league *ad captandum, and a myth.*

CHARGES FOR FREIGHT.

These can only be regulated by enlightened experience. In some portions of the South and especially in Texas the roads are a great burthen, and an incubus upon transportation. They have been built mainly on Government lands and Government loans, etc., and yet their charges are so exhorbitant in Texas as to prohibit and prevent freights. The old ox waggon runs parallel, and in sight of them for scores of miles. Times of course will cure such evils, and hurl out of employment men who cannot handle railroads, in competition with ox-teams. But in older States, where rival lines have sprung into being, and almost ruined the business by their number, no complaint can be made as to charges, except such as are incident to the cost of construction, and the operation of the heavy locomotives and cars. Reduce these and the charges will follow.

There is a point of *minimum charge, and maximum traffic*, only to be reached by experiment; and with some oscillations, this point should be preserved with scrupulous care.

The rates used by American roads, give about 42 per cent. of gross income for support of the road, wear, tear of rolling stock. Running expenses, on roads of fair progress, or complete lines. If we use a sinking fund of 30 per cent. gross, for replacing of roads and new stock, we shall have about 28 per cent. gross for dividends upon stock. And assuming the stock to represent little cash and much water, we have occasional dividend very respectable

RAILWAY LEAGUE.

It appears to us that Railway leagues, if they mean any thing more than such combination of capital and influence, as shall carry out proposed improvements, are useless and reprehensible. In fact the scandalous iniquities certain secret leagues have given the name a sort of infamous odor.

The political bearing of this movement, has been already confessed, in the candidacy (self announced) of Mr. Sherwood for the Presidency! The presumption and arrogance of this presentation, is not more marked, than the crudities of his railway assumptions.

CIS-ATLANTIC AND FOREIGN NOTICES.

The incongruous and scattering pamphlet, uttered by the League as compiled by the Secretary Mr. Henry O'Reilly will not fail to disappoint any railroad man ; for he will find in it only a series of puffs of Mr. Sherwood and the league copied from various news papers, a few beyond the Atlantic, nearly all having the same set phrases and extravagant assumptions. One pen wrote a large majority of these if not all; and that pen had *Statemanship*, and the "New York and Erie Canal," on the brain.

Should the present system of heavy roads and vehicles be continued, a reduction of speed would be a necessary economy. In this I entirely agree with Mr. Sherwood. And it is possible the time tables may be improved in uniformity. Whenever a system shall be matured, according to any plan divised by the League, (or Mr. Sherwood, which is the same thing), I shall give it as candid an examination, as if it came from a practical Railroad mind, I have never seen the matter attempted. Certainly the popular, (and impossible) feature proposes that every man may use his own car would not much promise to improve the regularity of trains upon the lines.

For an example of the wild and vague notions of this ubiquitous writer, upon railway matters, we would simply refer to the constant intrusion and obstrusion of the New York and Erie Canal upon the readers attention, in treating of railroad freight capacities. Such comparisons are so incongruous, impossible and absurd, as to suggest either mockery of the subject, or mental obliquity in the writer.

The pamphlet, the address, and the *American Anti-Monopoly, Cheap Freight, Railway League*, I seriously submit, do not merit further criticism; not unless and until it shall have taken some action, or submitted some definite plan for criticism or comprehension.

RAILROAD GUAGE.

The original guage or span given to Railroad carriages was that of common wheel vehicles, established by an experience of ages. This authority could not lightly be ignored, and hence *all* railroad tracts were made 4 feet 8 inches, for some years. The first important departure was a leap to 7 feet ! ! for the Great Western, or Liverpool and London road. This was followed by others on this side the Atlantic, the New York and Erie adopting a 6 feet guage : the Ohio and Mississippi, and the Atlantic and Great Western following with the same guage, while several Southern roads assumed the 5½ feet mean-guage.

These variations were and continue to be productive of the greatest inconvenience, requiring the breaking of bulk, and rehandling of old freights destined over two roads, of different guage.

This was perceived by Engineers and Railroad men, west of the Mississippi River, and an effort was made to establish an uniform, larger guage for all roads west of that river.

The writer was an earnest advocate of a larger span than the old narrow guage, and urged upon the directory of the New Orleans and Opelousas road the 5 feet 6 inches, believing this the first great road west. While the matter was under consideration, the St. Louis Pacific Company, ordered their first locomotive at 5 feet 6 inches; and this settled the question. We adopted it for the Opelousas road, and urged upon the Legislatures; and it became the general law in the West.

He would avail himself of this opportunity to renounce in toto and in common with other Railroad men, as the result of experience the advocacy of any broader guage, and would with them return to the original guage of 4 feet 8 inches. This is but a fair corrollary of his late article on "Cheap Railroads."

Gratified at the reception that article has met among the best judges, and at the introduction of steel rails on several American roads, the writer is encouraged to elaborate his subject still more; and proposes in his next contribution, to reproduce in amended and general form, the local article, he published in the Texas newspapers, last January on "Wooden Railroads."

We publish with much pleasure these rather acrid comments on freight leagues, and the rather dogmatical censure of those who differ with the writer. For ourselves we are satisfied that there is no very large amount of science involved in either making, maintaining, or running a Railroad. The reconnoisance of a new country should be based on its geology, its hydrography and largely on a practical knowledge of the topography, as derived from the knowledge of the inhabitants. The operations of leveling up the line of construction, of computing the end areas of cuts and embankments, the radius of the curve the hight and distribution of elevation by grades, the adoption of a proper guage, the strenght of structures, and materials for roads, bridges, with the positive work and probable cost of tunnels, are all mechanical facts readily acquired and in good part already tabulated. The actual cost of moving freight, and the still greater cost of moving empty trains, the importance of making the freights of a road one way equal and balance these of the same road the other way, these are points requiring a mixed knowledge of science and experience and are strickly within the province of the engineer. And no man, is fit for the Presidency or Directorship of a Railroad who does not comprehend them all and more besides. When, however, the Engineer goes beyond this mechanical department, and dictates. as we have sometimes known them to do, in very bad temper, and especially indifferent English, the financial and commercial policy of a Railroad Company, they then trespass upon the department allotted to the administration of their Company, and it is a reproach upon an administration, when the discussion of finance and commerce committed to officers whose province it is to build, maintain and run roads.

The guage question has been discussed experimentally and in theory. As a result it seems to admit that the short curvatures and

heavy grades of a mountainous country require a different guage from the long and level lines of the coast.

But we repeat, an opinion expressed in a former article, that the larger the extent of roads conducted under a single administration and upon a common guage, the more the interests of commerce will be promoted. According to our idea, the railroads are to be managed for the benefit of the country, and not the country for the benefit of the Railroads. We concur generally with Professor Forshey that "in some portions of the South" the Railroads are almost an "incubus on transportation." This we attribute to the fact that the direction of these roads are so often entrusted to men who know nothing of railroad policy or management. Hence we have seen much difficulty in connecting the rail with the shipping, in making a common and continuous guage, in consolidating long lines under such administrations. In delivering the freights over to Express companies, in refusing to make through bills, and to prorate freights with connecting roads, and generally, the opposition made by Railroad Directors to adopt measures of modern improvement, essential to give the public the full benefit of the Railroads, for which they have paid so dearly. [*Editor Review.*]

ART. XII.—MANUFACTURES IN THE WEST.

Without being in any respect protectionists, we are the advocates of mixed industry, and we believe that if the millenium of untaxed consumption shall ever come it will make both the West and South prosperous, because Nature has given them protection in their sun and soil, and in the abundant production of raw material and provisions. These advantages would undoubtedly attract to these sections the capital and skill of the Eastern States. This is, however, speculating upon remote and improbable consequences. In the meantime, a tariff which compels other nations to consider the propriety of imposing retaliatory duties upon American products is certainly so protective as that the West will be justified in embarking in manufactures. There is another substantial reason brought to their attention by Hon. Judge Kelley in his speeches at Milwaukie and Springfield, Ill. It is that the South will soon cease to furnish its former market for Western produce. This is true, but the argument might be expanded. The production of the West is far too great for home consumption. With the millions pouring in from Europe, the provision products of the West will require a market abroad. This can alone be sought in the States of America, south of the United States. For the railroad development of Russia and other nations of the north of Europe will so far increase the capacity of those nations to export that the European market will be filled with their products. The Western States tilled by these same

northern nations whose people emigrate here, must soon produce more than the European demand. Two resources then remain to the West. First, to condense their provision products into manufactures. Secondly, to export their surplus provisions to the continent of America. At present, however, we confine ourselves to the following communication from N. Y. Tribune. It embraces a wide and statesmanlike view of Western interests. It is a view which every Southern man should seize. It is by employing such means of reinstating the South in its wealth and numbers, that Southern liberty consists. Without endorsing every political opinion of the article quoted, we trust the day may come when the West shall have a population of 62,000,000 and employ its people in manufacture. We shall conduct their commerce through the port of New Orleans, for their future is our future:

"A people which adopts the settled policy of buying articles of daily use from foreigners either will remain, or will become, barbarians. Civilization in nations is indicated by their drawing manufactures into their midst, and by their emancipating themselves from foreign labor and skill. What is true of the traffic between nations is true also of the traffic between the different parts of a great nation. The freight and expenses on many articles taken from the Eastern States to the West exceed in value the original cost. The first settlers exchange all the products of the soil they can spare for building materials, and to make home comfortable; and much of this trade is at such a sacrifice that it cannot be permanent. Therefore, so soon as possible, manufactures are started, that articles of prime necessity may be made near home. The trade with distant points following the settlement of a country is equally ruinous, for indebtedness, and, in time, more or less insolvency ensue; and to prevent this the manufacture of goods requiring more capital and skill come in. Thus we see in Ohio, Michigan, Indiana, and Illinois, manufactures have increased with each years' growth, and a great variety of articles for daily use are now produced within their own borders. In these sections where the soil is best, and where mental activity, as a consequence, is greatest, more varied productions succeed. At Elgin, the new style of American watches are made; at Joliet, a great variety of perfumery, and in Chicago jewelry, a fine list of fancy articles. Money paid in Boston and New York for beef from Illinois, has been invested so soon as it could be spared, in building woolen factories, flax works, machine shops and furnaces, which are laying the foundation for a market for beef at home. The progress of manufactures has been in proportion to growth, and to the lapse of time, and they correspond in order to successive geologic periods.

The attempt of England to supply America with manufactured goods must fail. The dead weight attached to the transportation of goods, and of the course and heavy products which pay for them, alone will break it down; nor can their cheap labor, which brutalizes, and which is intended to brutalize us, save them, for it contains

within itself every element of decay. The whole scheme is an experiment, for never before has one civilized nation attempted to manufacture for another civilized nation. The distance to which goods can be transported profitably, either from one country to another, or within the boundaries of either, is limited. The trade between Europe and America, to be healthful and permanent, must, be in commodities produced by the help of natural advantages not common to both. If this law is respected, there will be fair profits, and the increasing population will make this trade enormous. But this is only on the condition that the population of the two continents be more equally balanced, and Europe will receive great advantages from still sending us laborers and manufacturers.

In the West, the child is born which will live to see cotton come directly out of the Mississippi, and wool directly from the farmer's barn, to be woven on looms made from the ores of Missouri and Lake Superior iron. Simultaneously, the wearing apparel of a people, with a reconstructed ambition, will be woven on looms run by streams pouring from the Cumberland Mountains into North Carolina, Virginia, Georgia and Tennessee. For the good of a whole country, when developed, only particular goods should be landed on our shores to cross the waters of the Hudson, and the Susquehanna, and the main traffic for New England should be, not with the West but with the islands and countries reached by sea. Even now, articles worth many millions, which formerly were produced in New England, are sent to the lower Mississippi, to the Plains, and over the Rocky Mountains from the workshops, the furnaces, and factories of the three great cities of the West. Nor is it Western, it is New England men who control this trade, and who have gone West to be near their customers, the same as British manufacturers are crossing the ocean to be nearer theirs. When the natural advantages and the soil of the States of the Mississippi Valley shall be developed equally with the State of New York, their population will be about as follows:

Ohio,	6,000,000
Michigan,	4,000,000
Indiana,	4,000,000
Illinois,	8,000,000
Wisconsin,	3,000,000
Minnesota,	5,000,000
Missouri,	6,000,000
Kansas,	8,000,000
Iowa,	6,000,000
Nebraska,	5,000,000
West Virginia,	2,000,000
Kentucky,	3,000,000
Arkansas,	2,000,000
Total	62,000,000

The great American desert is fading away. A magnificent country is about to be opened 500 miles west of the mouth of the Platte. It is true that new methods of farming will be required, and

among these will be irrigation, the boring of artesian wells, and the planting of forests. Knowledge of a practical character has so increased in our generation that what were obstacles thirty years ago are not such to-day. In a collective sense, our national perceptions are so enlarged that men in common life quickly take into view small objects as well as remote ones having connection with each other; and, being possessed of ability to execute, they triumph where their forefathers despaired. Hitherto, wherever the red man and the buffalo lived, the white man has planted gardens and orchards, and bounded the horizon with fields of grain. The Plains have as many natural advantages as Judea, once a populous and favored land. With the fertile soil, and the unchanging climate of the interior, with the help of industry and mechanism, there is no reason why it should not present rural and village scenes as fair as any other the world can show. Long after the commencement of this century, the Grand Prairie of Illinois, now rich in farms, and unequaled by any beneath the sun, was supposed forever uninhabitable.

To each generation is given a great difficulty to overcome. Far away in the glades and valleys of the mountains of the interior, grass grows abundantly, and there herds can graze this summer; there those varieties of apples, which bear bountifully in Sweden and Russia, will grow; and beneath the snowy roof, animals and men, with provision in store, will wait for the running of the torrents and for the springing of the grass again. On all maps this great interior is dwarfed. But from north to south, and from east to west, the distances are comparable to the distances from Paris to Moscow, and from the ruins of Carthage to the Pentland Firth. Of farmers to supply the myriads of miners and townsmen with food; of tradesmen, and mechanics, and operatives in factories, run by coal or by water from the mountains; the population between the Big Blue and the Sierra Nevadas may be estimated to reach one hundred millions.

These are the things which our children shall see when our bodies are moldering in the dust. For thousands of years our country has been reserved for the final triumph of civilization. All that with so much labor and blood, and with so many tears, has been gained, shall be saved; and as an offering to the lovers of civil and religious liberty, who perished at the stake, on the gibbet, and beneath the axe of the executioner, immeasurably more. With this view of the glories toward which we are marching, how inconceivably paltry is the scheme of the Free Traders, who, at the outset of our progress, and in the bloom of our youth, would bind us hand and foot to the manufacturing interests of the little Island of Great Britain.

COTTON MANUFACTURING IN OR NEAR THE COTTON FIELDS OF TEXAS COMPARED WITH THE SAME AT ANY POINT DISTANT THEREFROM.

[From the Galveston News.]

EDS. NEWS: In the many interesting articles upon manufacturing in the South that have appeared in your paper, none that I am aware of have attempted to show the comparative advantages of different sections sufficiently in detail and from reliable data, upon which it would be safe to base estimates. The writer being in possession of such data, the results of his own and others experience, offers it to the public, hoping thereby to contribute something to arouse a spirit of enterprise that will eventually utilize our immense natural advantages for manufacturing cotton fabrics. I will first analyse one bale of cotton of 500 lbs. before it is ginned and at the ginhouse, to show what it would produce if manufactured there, 500 lbs., or one bale of lint cotton, requires an average of 2000 lbs. of seed cotton for its production, which, after being ginned, leaves 1500 lbs. of cotton seed.

The lint cotton made into cloth on the spot will produce 1000 yards of the heaviest quality of goods, worth, net cash on the spot, 18 cents a yard, or		$180 00
The cotton seed, made into oil, will produce 35 gallons of crude oil, worth 70c. per gal.		24 50
And 1000 lbs. of oil cake, worth for exportation or home use $20 per ton at the mill—½ ton,		10 00
Gross product from 1 bale at mill,		$214 50
The cost of the manufacture will not exceed, when carried on a large scale, 4c. per yard, or	$40 00	
And for the oil 5c. pr. gal.,	1 75	41 75
Net value of one bale of cotton, manufactured where it was grown,		$172 75

We will now transport this bale to Lowell and see the result; the cotton seed being so much the larger proportion of the planter's product, cannot be taken to Lowell with the lint, as the freight and charges would amount to more than double the product. Therefore at Lowell, we can only operate on the lint cotton.

500 lbs. producing 1,000 yards of the same quality of cloth as in Texas, and allowing them some advantages for long experience, we will allow them the same price for their cloth, which is giving them for such advantages all the profit now made by purchasing the cloth in Lowell, and selling it in the interior of Texas, certainly a large margin.

1,000 yards, at 18c.,		$180 00
Cost of manufacturing, 4 cents per yard	$40 00	
Bagging and rope for one bale	3 00	
Freight on one bale, say from Bryan, Texas, to Lowell, Massachusetts,	12 00	
Insured twice, at 2½, on $60,	3 00	
Commissions, 2½	1 50	
Press charges	2 00	
Wharfage, brokerage, wheighing, etc.	1 00	
Average loss in weight, and by damage	3 00	$65 50
Net value of same bale, manufactured in Lowell		$114 50
Value as above, of bale manufactured near the cotton fields of Texas		$172 75
Difference per bale, in favor of Texas		58 25

This may to the uninitiated look almost incredible, but is nevertheless true, and will only be further strengthened by impartial investigations. It is true that in Lowell they make finer goods than the quality here taken for illustration; they make more goods from a pound of cotton, etc., etc.; so can we in Texas, and beat them badly. Yes, much more on that than on coarse goods, and for the following staple reasons (for which they have no remedy.)

The writer has now in operation in this city, two machines for cleaning cotton, one of which attached to Gullett's Steel Brush Gin Stand, will take ten bales per day from the seed and deliver it direct on the Lap Roller ready for the carding machine, cleaner than the best beater lap machines now do it in the best cotton factories.

That your readers may fully understand this important point, affecting the quality only of cotton fabrics, I will explain that the universal method of preparing cotton, from the bale, for the carding machine, is first to pass it through the "opener," by which the fibres are, to a certain extent, separated, and, thereby, many of them broken; it is then passed through the "beater and lap" machine twice, each machine having two or more beaters, which consist of straight bars of steel, revolving at 2000 revolutions per minute around an axle to which they are attached, and striking the cotton, which is pushed up to them, over the edge of a steel plate, and so timed that the staple of the cotton gets three blows in every sixteenth of an inch on the length of the fibre from each beater, or twelve blows on every sixteenth of an inch altogether. This is done to break up the leaf, and beat out the dust, and breaks also the largest part of the fibres, shortening very materially the staple from what it was originally. Thus it will be seen that cotton fabrics must be made direct from the seed, and very near the cotton field, if the unbroken staple is to be worked up unimpaired, instead of the "shoddy" that is of necessity made of it, by having to bale it for transportation to distant points, and then get it back as nearly as possible to the condition in which the ginning process left it.

The slightest examination of lint cotton as it comes from the gin, and the same as it comes from the lap machine, will convince any person that the beating process has materially shortened the staple.

During the process of baling, pressing and compressing, the fibres become so interlaced, and "napped" together that is is impossible to separate and straighten them without breaking a large proportion, and it is not until after having passed through the drawing frame—that is, first through the willow or opener, then twice through the beater and lap machine, and then through the cards and drawing frame—that the fibres become straight and are brought back to the condition in which they left the gin, only that its staples has been materially shortened. By manufacturing from the seed cotton with the machine before mentioned, for ginning and cleaning, it is delivered on the lap roller without being touched by the hand or brought under any beating or pressing operations tending to interlace or break the fibres; therefore, as much as a longer staple would improve the fabric, so much will its quality be improved, if manufactured near the cotton fields and from seed cotton. If it is thought that the price of 18 cents is too high for cloth, it is only put at that figure to throw as much advantage as possible in favor of the foreign manufacturing in making this comparison; and as much as the price of the cloth is lower, so much will the balance be increased in favor of manufacturing in the cotton fields.

Every planter will understand much better than I can tell him, the gain to himself by having a market at his door for his seed cotton as soon as picked.

We will now compare the results of two mills of equal capacity and cost, one working in the cotton fields, and the other in Lowell, Mass.

I am informed by those who are managing cotton mills in Texas and other Southern States, that operative labor offers in the greatest abundance from the poor white families, and at cheaper rates than are now paid by Northern mills.

There are general expenses incident to manufacturing cotton, which bear much heavier upon small than upon large capital engaged in it; hence, it is more profitable to operate with from two hundred thousand to one million of dollars, and for the comparisons to be made, I will suppose an investment of two hundred thousand dollars at some point in Texas near the railroad, and assume that as good a mill can be put in operation here for that sum, as in Lowell at the present time.

We have in our favor a mild climate, admitting of cheaper buildings, and such abundance of territory that many large landholders will donate one thousand acres to a company that would locate on their lands; and we have against us the freight and charges on such machinery and supplies as would of necessity come from abroad. Mechanical and operative labor is as cheap to-day in Texas as in the North, and all building materials requisite for a cotton mill are as cheap here as there, and a large portion of the machinery can be made here of better quality and as cheap as there—therefore it is safe to assume that a mill of the same capacity can be put into operation for about the same cost here as there. It is unnecessary

for the present purpose, to go into the details of the cost of the mill in question, or to discuss the plan; but the writer will be pleased to give them in full to any person interested in the matter.

A first-class fire-proof brick and iron building, with all the machinery, cottages for operatives, house for agent, store house, saw and planing mill for preparing the lumber, brick yard, etc., etc. can be completed, of the capacity for working up ten bales, or 5000 pounds of lint cotton per day, from the seed, and working the seed into crude oil, ready for market, for tow hundred thousand dollars currency—about one-half of which would be sent out of the State for machinery, and the other half expended in it for material and labor.

In operating such a mill, with seed cotton, the labor of ginning and lapping ready for the cards, would be no more than opening, beating, and lapping from the bale, as now practiced. Therefore, our Texas mill would gain the usual toll of ono-tenth for ginning, in the purchase of seed cotton.

Assuming that our mill, working 3000 bales annually into cotton fabrics, makes a profit of ten per cent. on the $200,000 capital, we have	$20,000
Ten per cent. or 300 bales is made by ginning, which, at $50 per bale, is	15,000
Bagging and rope, freight, insurance, commissions, press charges, loss of weight and damage, wharfage, brokerages, and weighing, as before stated, $25 50 per bale, 3000 bales	76,500
Net product of oil and oil cake per bale, $32 75, on 3000 bales	98,250
	$209,750

Net profit of Texas mill one year on the investment of $200,000.

The Lowell mill of the same cost and capacity, less ten thousand dollars for the oil machinery, and making the same profit on manufacturing the same amount of cotton into the same quality of fabrics, and getting the same price for them, makes $20,000 only on the investment of $190,000, and why? Simply because they have to pay, 1st, for ginning the cotton, one-tenth, and the charges of $25 50 per bale in the advanced price of the cotton; and 2d, they lose entirely the profit from the oil of $32 75 per bale.

The Texas mills, now operating with small investments and purchasing their cotton in the bale, have but little, if any advantage over foreign mills operating with large investments, whose reduced general expenses are about equivalent to the small portion of charges saved by the Texas mill purchasing cotton in the bale.

It would be very gratifying to see our own people gather up this wealth in which they are literally wallowing, but if from any cause, or a combination of causes, they cannot do it, foreigner's capital most certainly will sooner or later, for the reason that the local advantages of the cotton growing region for manufacturing are incapable of transmission to other points.

Your obedient servant,

Galveston, November 26, 1867. S. H. GILMAN.

ART. XIV.—SOUTHREN RAILROAD POLICY.

The editor of the Review makes no apology for publishing the article which follows, from the Trade Journal of Philadelphia. In an article in our July number, we announced the proper railroad policy of the South, to consist in two words. "Consolidation and liquidation." We must economise the expense of our roads, and must expedite through freights. We cannot expect such cities as New Orleans, Charleston, Nashville and Richmond, nor the impoverished planters of the whole South to reimburse the losses occasioned our roads by the war. The roads should be, therefore, like individuals, reduced to the actual value of their stocks, and worked at that rate; thus, would the Southern planter and merchant derive great advantage from cheap rates and efficient management. We, however, prefer to give the endorsement of our opinions furnished by the Trade Journal. It saves us a good deal of writing: [*Ed. Rev.*

The advantages of railroad consolidation are usually admitted by sound, practical financiers. The outside public, too, that takes little interest in facts, figures or statistics, but always keeps a single eye to its own comfort, and its own pleasure, is always better suited by the new system which saves both trouble and expense to such people as are necessitated to make long journeys. It is not, therefore, wonderful to find the Southern people clamoring for the consolidation of their picayune railroad lines. A recent article in DeBow's excellent Review says, on this important subject:

"The adoption of railroad transportation, has been a new dispensation for the South. Separated from market by long intervals, and cut off from intercourse with the centers of intelligence and business by the innavigability of the Southern rivers, during much of the year, the Southern planter was peculiarly in the power of speculation. He sold on the tail of every market, and paid a larger proportion of his crop money to the intermediate jobber and factor, than most other men who cultivate the earth. The railroad delivered him from much of this exaction and dependence. With a capacity to put his cotton in market at any season, the Southern planter can now realize upon his crop at any place. His bill of lading and policy of Insurance, accompanied by his sample, are certificates of value which will command a cash advance in any market of the civilized world. Cotton, with the capacity for immediate dilivery becomes cash. The same facilities of intercourse with the markets enables the planter to procure, under all the advantages of commercial competition, whatever article he may need in exchange. He thus sells for better prices, and with larger net results, and purchases in cheaper markets whatever he may need. The railroad, then, is a new dispensation for the South. * * * * * Southern railroads have fallen into hands, which direct them rather for local or individual than public advantage. We employ the term individual, as the roads are not worked for the benefit, even of the corporations which build them."

The reason why these railroads are worked neither for the benefit of the corporations, nor the good of the public, is obvious. Unfortunately for the stock-holders in Southern railways, the latter have very generally been managed by persons who by inclination and experience, were utterly unsuitable for the posts they pretended to occupy. Party politics has well nigh ruined many a better institution than a railway, and yet the system has been prevalent at the South, of appointing presidents and directors, purely on account of their politics; their degree of ability being usually ascertained in proportion to the violence of their partisanism. The clerks, also, and underlings have had their merit determined by the closeness of their kinship to the politically selected officers of the corporation; and a few officers have sometimes been appointed from injudicious feelings of charity. It can easily be understood that a corporation made up of such favorite elements, must of necessity be a very poor one It will want to be close. It will guard against both public comment and newspaper attack with a single eye to the pockets of the president, directors, and pet appointed clerks. The stock-holders will be put off with no dividend, or else with a very small one, while the comfort, convenience and interest of the general public, will be treated to a large share of that cold contempt for the exhibition of which corporations are peculiarly renowned Seventy-five or a hundred miles of road, is usually quite long enough for such directors to manipulate to their own desires. A "small end" road of this description will not connect with any other. It will afford no facilities either for the trans-shipment of freight or for running merchandise on "through principles." It will grant no passes to the presidents or directors of other roads, but it will treat "newspaper men" and correspondents with the utmost kindness, from fear of being shown up in its true and contemptible colors. All connecting roads must deliver to it in "good order"—this of course is a fine thing for draymen and a great source of trouble to shippers, for it often necessitates extra charges, either from commission men or agents, as new manifesting, etc., is required at each terminus; and, all this for the accommodation of a seventy-five mile road monopoly. This stupid system produced so much neglect and delay that it gave birth to the express business, an expedite species of imposition, to which merchants were for a time only too glad to submit, in order to get their goods to their destination. The roads could legally ask no more than their charter permitted The express companies, however, "could collect any private contract they might make." This was a simple hiring out of the public, and, as such, could be viewed in no other light than that of a plain violation of faith on the part of the roads. The article above quoted is on this point particularly forcible. It says:

"It was a most unwise act on the part of the railroad company. The company had built the road; it maintained the road; if an accident occured to the road, the company paid its repairing. Why, then, should the railroad company have given the express company

the right to charge a premium on the service which it had performed? Only because the directory did not know or care for the duties confided to them. They threw off the public which had contracted with them to transport their persons and effects. The public had given the company a monopoly of this transportation, in consideration of performing it in an adequate manner, and at reasonable rates. In return, the company sold the public to the express companies. As a consequence, however, of this expensive system of providing for persons who could not provide for themselves, these scrap railroads came to trouble."

The express companies South did not probab'y adopt the method of "sugarizing" scrap railroad directors with ex-company stock certificates. When this is done, even though the neglected bulk of the railway stock-holders may grumble, yet the directors usually manage to direct the roads in such a manner as to keep them out of trouble. This *en passant*. The case in the South has resulted differently, and the result has been the consolidation proposals, which, under all circumstances, are superior, when carried out, to the continuance of the "isolation system."

The ecomomy of consolidation, will always recommend it to the railroading financier. The rolling stock can always be worked to greater advantage when held and ruled in quantity than when of limited amount. The machine shops can be worked upon a larger and more profitable scale. The salaried officials will of necessity be less numerous under one administration, controlling a thousand miles of road, than they could possibly be under ten different administrations, each governing one hundred miles. The Pennsylvania Central road combining five different lines between Philadelphia and Chicago—the Atlantic and Great W stern—the combination of three roads between Norfolk, Virginia, and the Tennessee line—the Chicago and Northwestern, with eight connections covering 1380 miles, are each the instance of successful consolidation. Passengers now travel from the Potomac to the Roanoke without change of cars. The same arrangement is being made with the whole line of coastwise and gulf State roads, through Georgia and Alabama. The New Orleans, Jackson and Great Northern railroad, has effected a similar arrangement, in the direction of Louisville and Memphis.

In fact, so many advantages does this system afford, that with gradual death of old fogyism, we may confidently look forward to its universal adoption. The effect of its adoption in the South, will produce a good effect upon the business men of the North. It shows us that enterprise is as prevalent South as North, and it will tend to produce such a fellow feeling between the two sections, as will redound to to their mutual advantage, both politically and commercially.

ART. XV.—A TRIP UP ASHLEY RIVER BANKS.

A DAY AMONG THE PHOSPHATES—A DESCRIPTION OF THE DIGGINGS AND WORKS OF THE CHARLESTON MINING AND MANUFACTURING COMPANY—INTERESTING DETAILS.

[From the Charleston Courier, 2d.]

The importance of mineral manures for agricultural purposes has been the discovery of late years. And as it has increased yearly since its introduction, we propose to devote a portion of our columns to a description of the works of the Charleston Mining and Manufacturing Company. At the invitation of Professor F. S. HOLMES, the President of the Company, we embarked yesterday on a tour of investigation. The day was, in every respect, all that a tourist could desire, and the pleasant drive which we enjoyed through the parishes of St. Philip's and St. Michael, and St. Andrews, will long be remembered as a pleasant break in the monotony of a newspaper man's life.

THE DIGGINGS,

are situated about fifteen miles from the city, on the banks of the Ashley River, and are now being worked by about 130 hands. On "Feteressa" plantation we were shown the first trenches, which were opened about four months ago. Further on, and nearer to Ashley Ferry, are the diggings now being worked. The stratum of Phosphate is about fifteen inches in thickness, and varies from eighteen inches to three feet in depth from the surface, running nearly parallel therewith. These srtata contain beds consisting of nobules of hard substances, of various shapes, varying in size from the dimensions of a whole brick, to that of an egg, the yield of which, when properly worked, is about six hundred tons per acre, and the hands employed are now exhuming that quantity. The proportion of Phosphate of Lime found in these nobules varies from fifty to sixty-five per cent., and in some cases, hand specimens have been found, on analization, to contain nearly seventy-five per cent. The basin of this deposit extends over a surface of about ten miles in length, and two in breadth, and at the banks of the river the strata are arranged in the following order:

Limestone formation, lower deposit, about 700 feet thick.
Blue Clay formation, second deposit, about three feet thick.
Phosphate formation, third deposit, about 1½ feet thick.
Alluvial formation, recent deposit, about two feet thick.

It will therefore be seen that there is an entire absence of the *Pleiocene* deposit, which should intervene between the *Eocene* and Post Pleiocene.

The fossils found in this (the Phosphate) deposit, contains in many instances, about ninety per cent. of Phosphate of Lime. These beds were discovered years ago by Professor HOLMES, and we find men-

tion made of them in the "Southern Agriculturalist," for 1844, but their value as fertilizers was never ascertained until within the past year, when Professor H., with the assistance of Dr. N. A. PRATT, found, upon a thorough analization, that they contained a larger proportion of the fertilizing material than had hitherto been known. On the discovery of this fact, these gentlemen immediately set to work and formed a company; and in a short time the work was began, which we hope, and have every reason to believe, will add largely to the wealth and prosperity of Charleston. But to resume our account of the works. After being exhumed, the Phosphates are carried in hand cars to

THE WASHER,

which is situated immediately on the bank of the river, where they undergo a thorough washing, and are then ready for shipment. This washer, which is worked by a thirty-five horse power engine, is made after a patent, the name of which we could not learn, and when in full operation is capable of washing above two hundred tons of nobules per day. The material is thrown into a trough which is supplied with water, and is conducted by means of the machinery to the outlet of the great tub, and thence, after undergoing a thorough cleansing, which frees it from every particle of mud, it is thrown upon the wharf, where it is collected in heaps and awaits

SHIPMENT.

That river at the wharf contains nearly twenty feet of water at low tide, and hence may be approached by steamers of great draft. The Company ship the Phosphates to Philadelphia, the steamer "Prometheus" having already sailed with two cargoes; and there are now large quantities at the works awaiting transportation. Arrived at the manufactory, it is ready for the manipulating process. The nobules are pulverized, and after the addition of a certain quantity of sulphuric acid, forms a most valuable manure, and is ready for market. We have not been able to ascertain the market value of the manure, it not having, as yet, come into general use, but it will doubtless in time realize a price sufficient to make the manufacturing of it profitable, and yet be sufficiently cheap to procure a ready sale. The Phosphate, in its raw state, is worth, at a rough estimate, about ten dollars per ton at the works.

Phosphate of Lime, whether used simply in the state of bone, or brought in the form of Superphosphate, is a fertilizer of great value, as the experience of twenty years has fully demonstrated; and it is a matter of congratulation that the soil of Carolina is so abundantly supplied with this most valuable material. Professor ANSTED, of the Athenæum, in a lecture upon practical Geology, gives some account of a bed discovered near Cambridge, England, some years ago,

which correspond almost minutely with the beds of the Ashley. These strata, he says, contain shapeless lumps of various kinds, very soft when first dug, and gradually hardening till they had the consistency of white chalk. They have upwards of fifty per cent. of Phosphate of Lime, and when ground, are most valuable for agricultural purposes. But this deposit is not near so large as the one near Charleston, and is very uncertain.

The deposit in Carolina is almost inexhaustible, is situated near the river, which greatly facilitates transportation, covers a vast tract extending over ten miles on both banks of the river, and in fact is a source of wealth which must soon develop itself. The Charleston Mining and Manufacturing Company have made large purchases of land, owning now over ten thousand acres, and having near ten thousand more under lease They have been at work about three months, and everything indicates a successful carrying out of the object for which it was originated. The stock is owned principally in Philadelphia, where all the Directors reside. The officers of the Company are Professor F. S. Holmes, President; Arthur H. Locke, Secretary; Colonel Jos A. Yates, Engineer and Superintendent; and Samuel Grant, Jr., Agent in Philadelphia. Of course, in the short time the Company has been at work, it is impossible to have done very much, but the operations will soon be carried on upon a more extensive scale, and when the arrangements shall have been completed, whereby the Phosphates can be manipulated here, we are assured that the indefatigable energy of the management will be rewarded with a most complete success. There is material enough, and we see no reason why these works cannot supply a great portion of the vast demand for fertilizers throughout the State. It is to be hoped that our merchants and planters will give the matter their earnest attention. It should be the endeavor of every well wisher of his country to promote an enterprise which promises to be productive of so many good results.

ART. XVI.—LONG STEAMSHIP VOYAGES.

[From the American Artisan.]

Not over twenty years since it was thought that a transatlantic voyage of about three thousand nautical miles was the longest distance that could be traversed by a steam vessel without stopping for fuel, or else, by devoting so much space to fuel and machinery as, from a paying point of view, to put such a project out of the question. The improvements which have made sea voyages of nearly seven thousand knots possible, with a ship of quite moderate dimensions, are not difficult to enumerate. We first commence with the marine boiler. About twenty years ago the tubular boiler was fighting its way for a trial in ocean navigation; its fight with its

ancient rival, the flue boiler, was a long one. But the influence of rivalry, and the increasing demand for speed, which, other things being equal, of course means more steam, soon taught engineers to remedy the faults of construction and proportions in tubular boilers. The effect was, in the first place, to reduce the space occupied by this portion of the machinery, and at the same time very greatly to increase the quantity of steam that could be furnished in a given time; still further, the consumption of fuel for each pound of water evaporated into steam was diminished also, and consequently the space occupied by fuel could also be curtailed. The flue boilers seldom evaporated more than about five pounds of water per pound of fuel burnt, while well-proportioned marine tubular boilers seldom evaporated less than eight pounds of water per pound of coal, and they frequently reach as high as ten pounds.

Superheating the steam before it passes to the engine, is another improvement which has been widely adopted. A saving in fuel of twenty-five per cent. has been frequently accomplished by superheating the steam with the hot gases in the smoke pipes, and at the present time superheating apparatus is always a part of the machinery of a vessel which has any pretensions to economy.

With respect to use of the steam in the engine, the only change of any moment which has been introduced since the early dawn of steam navigation is the use of increased measures of expansion; the most economical steamers afloat are those which use steam the most expansively, and with what is termed the double cylinder engine. We must not omit to mention the surface condenser, which is now always fitted to engines of every economical steamer.

The changes which have taken place in propelling instruments during the past twenty years is very simple—it is the general adoption of the once despised screw propeller in place of the ponderous side-wheels for nearly all steamers intended for tolerably long voyages. Indeed, it is questionable whether a side-wheel ship can successfully perform voyages of say 5000 knots. The huge side-wheel steamships of the Pacific Mail Company, which ply between San Francisco and Japan, leave port so deeply laden with fuel and cargo that their huge engines can barely revolve their wheels eight times per minute, and to accomplish this their cut-offs are adjusted so that the steam follows the piston nearly three-quarters of its stroke, destroying economy and putting a great strain on the machinery; with a screw propeller there could be no such barbarous work as this, as the variation in the draught of the ship scarcely affects the screw at all, and consequently the engines can always be operated in the most economical manner. Such an engineering blunder as to construct paddle ships to run on such a route as from San Francisco to Japan is almost without precedent; with all the advantage of their great size—they are about 4000 tuns—these ships do not show as good a result as many screw steamers of but little more than half their size. We will mention the case of the screw steamer Ruahine, constructed by the Messrs. Dudgeon, near

London, for the Panama, Australia and New Zealand Steamship Company. This steamer is 1500 tuns, her length is 265 feet, breadth of beam 34 feet, and depth of hold 27 feet 5 inches; it is thus seen that she is a ship of very moderate dimensions. She is propelled by two screws, one under each quarter; they are driven by a pair of double-cylinder engines—a pair attached to each propeller; the steam is expanded from seven to eight times. These engines are fitted with tubular boilers with 150 square feet of grate surface, and 3500 square feet of heating surface; superheaters are fitted in the uptakes, and the engines are constructed with surface condensers. On one of her late runs across the Pacific this steamer ran from Sydney to Wellington—1250 knots—and then from Wellington to Panama—6,670 knots—without stoppage, in all 8920 nautical miles in 31½ days. During the run of 6670, nearly 7000 nautical miles, so perfect is her machinery that she only consumed on an average 2 3-10 pounds of coal per horse power. The run made by the Ruahine, under steam and without stoppage, is nearly 2000 knots more than the distance between San Francisco and Japan, a distance which the paddle wheel monsters manage to crawl over, at a constant risk of running short of coal, in from twenty-four to thirty days.

ART. XVII. THE RESOURCES OF ALABAMA.

The following letter will well repay a careful perusal, and is worth sending North:

MONTGOMERY, July 31, 1868.

Fred. K. Goddard, Esq., New York:

DEAR SIR: Your letter of the 27th inst., asking for information in regard to this State, has been received. It would require greater space than time allows me to reply as we wish to all your inquiries. This part of the State is usually called the "Cotton Belt," a tract of country varying in width from fifty to one hundred miles, and running across the State in a direction nearly east and west. It is a very fertile region. The soil is generally nearly black, containing a large per cent. of lime. The growth, oak, hickory, white oak and post oak. There are, however, within this scope of country, tracts of land varying in extent, where the soil is sandy, the growth "long leaf pine." This was the great planting region of the State. The lands are generally owned in large bodies, and devoted almost exclusively to the growth of corn and cotton. The large proportion of the "black population" is found here, and the tendency of that part found in other parts of the State, is to the "Cotton Belt." Lying north of this "Cotton Belt" is a section of the State differing widely from it. The climate, soil, variety, value of the productions, of which it is capable, its mineral resources, its abundant and salubrious waters, all make it one of the most delightful parts of the United

States. The Alleghany Mountains, as you know, enter the State on the northeast, and while they diminish in height, increase in width, forming a country of parallel ridges and intervening valleys more than one hundred miles across. While much of this country is unfit for farming, many of its valleys are exceedingly fertile, and the hills abound in minerals; springs of the purest water are abundant. The streams afford a great variety of fish, and the finest of water power. As to its productions, cotton grows well; careful cultivation has been known to produce over five hundred pounds of clean cotton to the acre, though with the process usually employed, not half that amount is produced. Corn grows well, better than in the Northern States, though not so abundant in its yield as in the West. Wheat is there a valuable crop, as it comes into market before the Northern crop, and always commands the highest price. As fine fruit as the Continent affords—apples, peaches, pears, plums, grapes, figs, pomegranates, strawberries, raspberries—all the fruits of the United States, except the oranges of Florida, of the finest quality and in the greatest quantity, may be produced. The "hop" vine grows well, and we are confident the yield will exceed that of the North and West. Every variety of vegetables can be grown. The hilly portions yield endless pasturage for sheep and cattle, while the oak, hickory and pine in the fall and winter afford abundant food for hogs. Minerals of great value are exceedingly abundant. The "Coal Fields" of the State, embracing an area of six thousand square miles, afford a supply fully equal to that of Pennsylvania. The "Red Mountain" (so called because of its beds of Red Iron ore) runs for more than ond hundred miles across the State, with strata of solid ore varying from two to eight feet thick. Beds of "Brown Iron ore" of most marvellous extent, and of the finest quality, are found in the counties of Bibb, Shelby, Jefferson, Talladega, St. Clair and Cleburne. Here are found, also, beds of the purest limestone, marble, white, gray and variegated, hydraulic limestone, lithographic stone, manganese, sulphate, baryta, slate, fire-proof stone, flag stone, sand stone, equal to the brown stone of New York. Porcelain, clay, red ochre—in short, all the minerals to be found anywhere in the Alleghany region from New York southward, are to be found in Alabama. This region is populated almost exclusively by white people. Before the war, when the wealth of the State was engaged in the culture of cotton, its vast and diversified mineral resources were in a great measure overlooked. It is one of the most beautiful regions "on the Globe." Freed from the rigor of the Northern winters by its latitude, and also from the great heat of the Southern summers, by its elevation, it is one of the most delightful countries to be found. As to its facilities for transportation, the Selma, Rome and Dalton Railroad runs along its southeastern border for its whole length. The "South and North Alabama" Railroad, (now in process of construction) which runs from Montgomery to Decatur, on the Tennessee river, will cross it in a direction nearly north and south. The "Mobile and Chattanooga" Railroad will run through it from northeast to south-

west. The Opelika and Elyton Railroad will pass through it from southeast to northwest, so that it promises, at no distant day, abundant facilities for transportation. The farming lands can be purchased for from five to ten dollars per acre ; what this country needs is population accustomed to improved modes of agriculture, to the raising of stock, to mining and manufacturing. It can furnish *happy, thriving homes to hundreds of thousands* of such. In every neighborhood will be found a school house and a church, and although the educational facilities are confined to the rudiments of learning, and their worship to the simplest form, one would be struck with the simple-hearted population.

In conclusion, permit us to say, that we think no State in the Union promises such an inviting field for labor, capital and enterprise as Alabama.

Yours, respectfully,
NEWMAN & HUGHES.

ART. XVIII.—THE WEST INDIA MAILS.

[From the London Post.]

We fortunately live in an age when communication with the most distant parts of the earth is in a measure rapid and complete. Every nation can now concentrate its skill and energies in carrying out great schemes, and to the facility with which ideas can be exchanged, wants made known, and to the relations which are formed between the peoples of regions thousands of miles asunder, must be attributed the success which has of late attended great commercial undertakings. The importance of the changes which have been brought about during the last half century cannot be overestimated. Barbaric wilds, which would have remained for hundreds of years useless almost to the savages who inhabited them, have been opened up to commerce, and the great European families have planted homes in parts, which for ages held no human life. Place the European where you will, and give him ready communication with his mother country, and he changes the face of the earth. But, without ready, rapid, and regular communication with the great centres of activity, capital, and intelligence, the pioneers in any distant country labor under great disadvantages and have their energies crippled. Communication, therefore, cannot by any possibility be made too complete, for it is the very foundation of all commercial enterprises and social success.

We regret to say that there are countries of old date in modern history—countries teeming with natural wealth and of the fairest promise—which have not contributed to the extent they might have done to the general wants of the populations had a more complete and rapid intercourse prevailed, and, consequently, more been known

about them. These observations apply with particular force to the vast regions comprised generally under the name of the West Indies. We have done much, it is true, for we have a splendid line of Royal Mail steamers trading to the principal ports, and we have other and very comprehensive means of transmitting our goods and correspondence and getting return freights and letters. But our present means are insufficient, and any opportunity that presents itself for making the West Indies more useful to us, and more inhabitable and more convenient for those who brave the climate, and there develop our trade, should not be lost.

The Royal Mail Line does good service, but it is heavily subsidised by Government. Now, heavy subsidies are a mistake. They prevent in a great measure that healthy competition with is invariably attended with the most beneficial results, so far as the general public is concerned. The general public cares not for particular companies, and objects to one company being supported to the prejudice of another, more especially out of the public purse. It is notorious that large subsidies really operate against the general interest in many instances. Take, for example, the case of a country, the trade of which is not large, and between which and European Oceanic Mail Service has to be maintained; take, in fact, the West Indies, and we will show the system operates to the injury of the general good. The trade of the West Indies is capable of supporting two or three lines of steamers at a very good dividend-paying rate, admitting each company has fair play and provides the public with accommodation which *de facto* is an equivalent, and more than an equivalent for the subsidy. But, in the case of the West Indies, the Government gives £172,000 (which is in reality two-thirds of the earnings of another company) to the Royal Mail Company, and shuts out the competition of those whose boats were built in order that they might, some day, carry her Majesty's mails, and obtain that fair recognition to which they are justly entitled. The effect of this is simply to give a bonus to the Royal Mail Line, for what purpose it would be impossible for any practical person to determine. It enables the Royal Mail Company to offer to traders special advantages, and to obtain freight upon which alone other shipowners have to depend, and it is manifet that such a system is unfair. The public might get two mail lines, and have their general business expedited and improved for the same or less money than they now pay. The reasons put forward by many of the subsidised companies to induce the Government to continue the subsidies are really monstruous. The Royal Mail Company recently applied, and, can it be believed, actually obtained, as far as the Government had the power to grant, an extension of a contract on the ground that they had experienced losses in conducting the service, and that it would be "expensive" to them if they had to keep their fleet in the state of efficiency according to the agreement, and the patronage of the Government was transferred at the end of a specified time. To make the absurdity of the claim apparent to everybody it must be stated that the Royal Mail Company

insure against losses in the same way as any other company, and their reports show that they have charged their revenue with a per centage of insurance. Out of this fund they have during the past four years, divided an average of £58,000 per annum amongst their shareholders, leaving nearly a quarter of a million sterling undivided to meet such losses as they recently sustained. The West India and Pacific Company and the general merchants trading to the West Indies sustained loss quite as severe and disastrous, and really we consider the public interest is neglected when such pleas as the above are allowed to have the slightest weight.

Much discussion has recently taken place on the subject of oceanic mail contracts, and a very strong feeling exists amongst the commercial community, and all persons who are directly interested in the matter, that the Government contracts should be carried out to the letter, and that competition should be invited. If large steamship companies go to great expense in fitting their vessels for the conveyance of mails it is only right and in the interest of the public that they should be allowed to tender. The West India mail contract is one of the most flagrant acts of injustice we can instance. It is simply sacrificing the interest of the public and the interest of one, if not more large companies, for the especial benefit of a single company.

It may be asked, is the West India and Pacific or any other Company capable of conducting the mail service with the same efficiency and with the same regularity as the Royal Mail line? They certainly are. The West India and Pacific Company has been engaged in the trade to the West Indies, Mexico, and the Spanish Main for eleven years, and at present despatch monthly, on fixed dates, a steamer to St. Thomas, Santa Martha, Carthagena, and Colon; another to Barbadoes, and, *via* ports in Venezuela, to Colon; and a third to Hayti, Jamaica, and Mexico. They possess a fleet of sixteen steamers, representing 23,272 tons, the largest of which is 2,498 tons. They are specially adapted for the Mail service, and have actually been in Government employ. The Company are prepared to carry mails at a much lower rate than is at present paid by the Government, and, as they would be liable to heavy penalties if they failed in their engagement it would be well if the public subsidy were divided and a vexatious monopoly were done away with. It was stated by the Government, so far back as 1858. "That when a new postal service is about to be establish by Government it is the practice of their lordships to invite tenders by public advertisement, thereby affording all parties an opportunity of competing for such services, provided they conform to the required conditions." We are sorry to say that this policy has not been adhered to in several instances, and the public interest has suffered accordingly. We protest against all unjust preferences and monopolies, and so manifest an injustice as the West India postal contract we hope to see swept away.

The proposed new contract, and the papers relating to it, have just been presented to the House of Commons, and there are one or

two points that strike us as looking questionable. In the first place, the Royal Mail Company apply for a renewal of the contract on the grounds we have stated above, and an official of the Postoffice is called upon to make a report, but both studiously avoid stating to the Government the fact of the Company having virtually insured against the losses, and that they had a large balance in hand to meet them. Another point is, that the Government become partners in the profits of the new contract, thus taking the position of traders, and competing with private enterprise. Within the past few days the Government have entered into a new contract with the Royal Mail Company. The contract provides that the present contracts are to continue in force until the 31st day of December, 1874, inclusive, and will then determine if the Postmaster General shall have given 12 month's notice. After 1874 the contract will continue subject to 12 months' notice, if, as before stated, the Government shall not give notice before that time.

ART. XIX.—THE SODA AND SALT DISTRICT OF MEXICO.

[From the British Trade Journal.]

This singular region contains 720 square miles of territory, the soda, or "tequisquite," as it is generally called in that country, being chiefly deposited in the lowlands by the lake Texcoco, about six miles from the city of Mexico, and which sometimes overflows up to its gates. It appears that the mud of this lake contains 4 per cent. of soda, and the water itself gives the following results on analysis at 1° Beaume, with a density 1·0069: Water 98·890, chloride of soda 0·570, carbonate of soda 0·485, and sulphate of soda 0·054. The efflorescent soda deposited upon the lands referred to is to be found in much more considerable quantities during the winter or dry season in Mexico than during the summer, when the diurnal rains wash much of it away, nor can it be collected during the latter season as the water soaks into the soil; but upon the return of the dry weather, the rays of the sun evaporating the moisture upon the surface, that left below gradually rises; and by this natural process the salts are consolidated, forming a crust, according to Senor Almarez in his "Memoria para servir la carta Hydrografica del Valle de Mexico," generally of about one centimetre thick. Sometimes, also, the efflorescence may be produced by plowing up and afterwards watering the soil. The efflorescence begins to be observable at the end of autumn, its white and crumbling flakes concentrating themselves by the action of the winter frosts into the crust above referred to, and which is composed of two descriptions of "tequisquite" or soda, called by the natives of the districts around cascarillo and polvillo, and which are scraped up and deposited in cellars, either for immediate sale or for purification on the spot. The soda

which is obtained from the waters of the lake themselves is generally not perceivable until a considerable evaporation of them has taken place, when it appears upon the surface of them in the form of a frothy substance denominated espumillo by the natives around, and for obtaining of which the waters of the lake are dammed up into pools. so soon as they begin to retire, by heaping up mounds of earth around them. Mr. Hay, an English gentleman having some works on the spot, calculates that he gets 15,000 quintals of crystalized soda at his works, which sells in the city at $10 per quintal, and Mr. Bowring asserts, in a paper recently published in France, that 60,000,000 tons may be obtained from the bottom of the lake. Mr. Seagar, says that the cubic metre at 10 per cent. in solution contains 216 pounds of common salt and soda in equal proportions. The waters of an upper lake called Xachimilco, which are carried into the former lake, are reckoned to carry forty-seven metrical tons of soda into the Texcoco.

The simple mode of proceeding hitherto pursued by the natives of the country for the separation of the soda and the common salt from the other substances, and which is still pursued in the more remote silitrous lands of the country, has been replaced in other places by other means for attaining the same end suggested by chemical science and modern discoveries. The old system consists in diluting and filtering the silitrous earth referred to, and which is placed in large pans formed of the earth, from which the tequisquite has been already extracted, and in which branches of trees are placed crossways and entwined with rushes or "petate," a kind of grass used for matting, so as to stop the earthy particles and sulphate of soda from passing through, the pan being pierced at the bottom so as to admit of the passing through of the water, which being conducted by means of a hollow reed or of a maguey leaf into tanks, evaporation is effected by the action of the air and sun, or by means of artificial heat when the water is conducted into boilers. The solineros who conduct the salt-works convey the water to the height of twelve inches into troughs of masonry, which are of two descriptions, called respectively "concentradoras" or "concentrators," and "cuajadoras" or "coagulators;" and the water runs gradually from these of the former into those of the latter denomination, in which the time consumed in the process of crystalization naturally depends upon the temperature of the atmosphere or other meteorological causes; but it is calculated that, the solution being at 18° to 20° Beaume, and the water being from two and a half to three inches in depth, crystallization takes place in four days in summer and in eight in the winter. The earthy particles contained in the water are cleared out of the trough so soon as they appear; the chloride of sodium then crystallizes and forms a crust of about a miriametra thick, and adheres to the bottom of the trough; the saline particles then, forming themselves into small heaps as the water dries up, being finally spread out to dry and harden in the sun. Salt and chloride ef sodium being alone required in the dis-

tricts of San Luis Potosi and Zecatecas, referred to on account of their being extensively used in the reduction works of the silver mines in the vicinity, the sulphate of soda, which is likewise obtained by the operation in question, is taken into no account whatever, but is left piled up in immense hillocks and as mere refuse around the various salt works.

With such vast resources in the elements of purification, it is to be presumed that the Mexicans are very clean in their ways. Possibly the Ethiopian might have his skin changed were he dipped in this strange lake, which seems like a great washing tub for the whole world.

ART. XX.—OUR BOYS AND GIRLS.

An old proverb says, take care of the pennies and the dollars will take care of themselves. Bearing always in mind, the fact that the pennies make the dollars, and without intending in the least degree to disparage that portion of human currency stamped with female heads, suppose we alter the adage to read thus: Take care of the girls and the boys will take care of themselves. That this, in an educational point of view, is in direct opposition to all preconceived ideas of the comparative rights of boys and girls may be true; that it is in accordance with the progress of the age is, however, also a fact. The old times have passed away when Betsey was content to learn reading, writing and arithmetic at the parish school house in order that John might enjoy the advantage of a college education. Now-a-days, Betsey wants a college education too, and it is very probable she will make a far better use of it when once acquired than John ever will. In fact, if it can be accorded but to one, Betsey should have it; unless, indeed, John intends studying for a profession, in which case alone her rights should be waived in his favor.

Experience proves that a man need be no "candidate for college prizes in order to secure success in any of the ordinary vocations of life. It is all the better for a "business man" that he has not sapped his energies in midnight oil, and wasted many precious years in the study of dead languages and abstruse science. If he have a natural love for books, his daily labors will not incapacitate him for the enjoyment of literary pursuits. On the contrary, the brain and body wearied with the fatigues of commercial or mercantile life, will turn with keen relish to these alluring sources of recreation. Simply knowing how to read is a mighty power, a sort of mental engine with which a man may work himself up the steep grades of knowledge and attain the very pinnacle of learning. The hackman seated on his box waiting for a fare, if he but improve his unoccupied moments by a little daily reading, in the course of time will outstrip the young collegian who, full of the classics, and fresh

from *alma mater* has really less general information than the coachman who has been but a careful reader of general miscellany. Going to school to ones own energies is a system of education productive of the most remarkable results, and learning thus acquired is of the most enduring kind. The laborer who with his own hands works hard for a living is not apt to recklessly squander his earnings; and the mind which, self-assisted dives into the deeps of knowledge an earnest seeker after pearls, carefully secures the precious jewels it may bring to the surface. That which the mind earns is always invaluable. Toward this end every child should be encouraged to form habits of application, mental industry, and reflection. Without these he will learn nothing in the best of schools; with them, his education is safe enough, though his schooling may have been of the most limited description. There must be good mental digestion established or the whole intellect suffers; just as from inaction of the liver the food we swallow fails to do us any good. Let there be no mental dyspepsia, and if the thirst for knowledge but exist it will struggle for the attainment of its desires, as persistently as the grass blade struggles upward to the light; and, although a man may work at a trade, or keep a grocery, or drive a cab, he need not be uneducated if he have but the inclination to be otherwise. A boy is very early taught the value of money, while the value of time is considered a matter of little importance. The world beats into his head at last the knowledge that "time is money," but he will not be able to turn even this precious bit of wisdom to account, if he have not been taught to appreciate the value of spare moments; that loose change of time, which properly invested returns so rich a percentage upon the original outlay.

A woman's cares are so different from those of a man—so tenacious of their rights, so impassible to turn aside from, that her opportunities for self-education after she has become what is called settled in life, are rare. Her girlhood is the precious season for intellectual culture; her subsequent acquisitions are like the ratoon growth of cotton, offshoots from the old stock. A constant effort is necessary to keep educated; to ward off in the midst of her multitudinous duties the terrible sponge of time, threatening constantly to erase from the mind its most cherished treasures. Memory is apt to play saucy tricks at all times; and though it never actually loses anything, it is like a certain housewife I know of, who is in the habit of putting things away so carefully she doesn't know herself where to find them. If a woman does not carefully watch herself as she presides over her nursery, directs her household and performs the numerous duties of her daily life, she will suddenly make the appalling discovery that this same treacherous memory has hidden her casket of jewels and will not produce them on demand During her school days then let every girl be taught the utter vanity and unprofitableness of superficial attainments. Let it be studiously impressed upon her that it is her bounden duty to be honest and earnest in every undertaking. Let thoroughness be her motto, truth

her standard; and let her conscience be taught that truth consists of more than simply stating facts. If, by a certain sort of leger-de-main practiced in some schools, a pupil is permitted to "graduate with the highest honors," when in reality she knows nothing, that girl is not truthful; she is a living lie, a base impostor. Alas! do we not all know many such? We hear them read their sentimental valedictories, see them pass out "finished" through the doors of fashionable academies, display in triumph their pretty diplomas and feel all the time the aching conviction in our hearts that they could not creditably pass an ordinary common school examination. A girls moral standard has much to do with her intellectual excellence. If she have truth, and honor, and a high sense of duty the teachers task is comparatively easy. As it is, teachers are constantly imposed upon by having pupils thrown upon their care who have had the most indifferent home culture, and are sent to school with both heads and hearts completely overgrown with weeds. Sometimes there is not enough patience exercised to eradicate these weeds, and an attempt is made to plant good seed among the tares. There can be but one result.

The education of our boys and girls includes something more than books can teach or professors impart. All are ready to concede this; yet, how culpably careless or indifferent are we to the significance of the fact. We are prone to attach too little importance to the education of the senses, which is continually going on. They are quietly feeding all the time upon unnoticed crumbs; often fattening upon most pernicious food, furnished by our own thoughtless shortcomings. From the time the infant, in nursery parlance, "commences to take notice," his education begins. His eye accustoms itself to the objects it beholds, his ear to the sounds that fall upon it, his sense of touch to the things the baby fingers grasp. Even at this early age, care and judgment can be exercised with undeniable benefit in the choice of a child's surroundings. The selection of playthings; the character of persons daily associated with him; the lessons imparted by inanimate objects, all have their due effect upon the little waxen nature receiving its impressions from all things. Even the visitors whom we welcome in our homes are the unconscious teachers of the little folks quietly observant of all that is going on around them; and the accidental location of our houses is not without its weight in the subtle influence of association. Early impressions are always lasting—a twisted sapling makes a crooked tree, and, the old man who cannot remember that which happened yesterday, recalls with astonishing clearness events which occurred when he was a boy. Who among us does not recollect if neatness or disorder, learning or ignorance, refinement or vulgarity, love or unkindness characterized the home of our childhood?

From the time a child is thought old enough to read, and in the generality of cases, this is several years before he really is old enough, he becomes a martyr to type. Type, in terrible columns of

words to spell; type, in dull grammar rules to learn, type, in appalling geography definitions; type, in incomprehensible catechism lessons; type in every form, distracting the poor little heads and sickening the poor little hearts. It is, in fact a disease of which a great many children die. It has filled hundreds of little graves. In some sufferers it takes the form of brain affections; in others, spinal complaints; in others, general debility; but it is often nothing else but type disease, and the poor little victims fold up their tiny hands, and die meekly of it, escaping from this world with a smile on their lips, to the land where type is unknown! Now, there is this quality in type—like certain drugs, in proper quantities it is a renovator, but an overdose will prove fatal. It is at once an elixir, and a destroyer. It ought never to be given to a child "dry so," as toddy takers say, but it should be sweetened with much judicious gentleness—a story or two, a delightful ramble or something of the kind. Children are excessively fond of sweets, and the sugar of affection, praise or encouragement will make the bitterest tasks palatable. Patience to fix nouns in the memory by narratives, and adjectives, with anecdotes, is a system which needs but to be tried to prove its efficiency. The love of learning alone cannot be trusted to entice little folks willingly through the tangled thickets of elementary instruction. I once heard of a board of school directors who objected to the use of a certain spelling book because it was illustrated. God help such grand inquisitors! They would put the thumb screws on the little victims to extort a-b-abs, and resort to the rack to make converts to their "flat stale and unprofitable" ideas of education. Much they know of childhood and its need! As well might bears be set to rear canary birds.

Children are not allowed sufficient intercouse with nature. In their tender years they should be put out to nurse—so to speak—to this great and tender mother. She, who always teaches by illustrated works. We shall find her cultivating their reflective faculties, stirring up the deeps of their being, and awakening to a noble life their inherent excellence. We hear a great deal about "making a living," which, simply means what we shall eat, and what we shall drink, and wherewithal we shall be clothed. Why are we not equally anxious to make a living for the intellect? It is by no means necessary to starve one in order to feed the other; yet, how many of us are content to let the mind subsist on bread and water, while every energy is devoted to the pampering of mere sensual appetite. To keep our mental faculties close prisoners in the rank dungeons of body, to chain them to the oar, poor galley slaves in the penal service of "how-to-get-rich" is one of the mistakes of the age. If we would have this otherwise, we must teach our little folks how to bring up their own souls. We should instil into their hearts a love for the beautiful, cultivate a taste for the study of the wonders in the land the Lord their God giveth them, and teach them to find delight in the contemplation of the heavens above, the earth

beneath, and the waters under the earth. In this way we can make them independent of the frivolous diversions of fashionable life. We shall have fewer dissipated young men, fewer miserable wives and wretched homes; and gradually a new social atmosphere will be formed, in which men and women will not appear, as now, mere moths and butterflies in the glare of gas lamps, but mentally and morally improved; frankly daring to be themselves and true to themselves, and far worthier of Him in whose image they were created.

If we teach our children to love country rambles, to study the mysteries of the natural kingdom, to gather shells, to love the song of birds, to watch the insect world, the marvelous scenery of the skies, and listen to the whispers of the leafy tongued forests, have they not acquired the key to noble and innocent enjoyment? Though they may never attain the heights of science in these studies, are they not, as mere pastimes, fully as beneficial as playing cards and dancing round-dances?

How many art-critics have we, who are students of nature only upon canvas. It is an absurdity but nevertheless a truth. They effect the fashionable verbiage, and talk of light and shade, and depth and breadth, and "bits" and "tones" and "handling," yet, they never in their lives, perhaps, thought it worth their while to spend a few hours occasionally in the grand studio of nature, or to perfect themselves as critics in her own incomparable school of design. They are content to form their judgments by comparing one artists work with that of another, quite satisfied to see nature through anothers spectacles. Many of them are in reality as ignorant of what they are talking about as the city girl who, upon a visit to the country, naively inquired, which cow gave the buttermilk. It is not such as these who will elevate art, it can only suffer in their hands. Art must be appreciated in order to flourish, and to appreciate art, nature must be studied and understood. It rests with ourselves to bring the tastes of our children in this respect up to a correct standard.

Another great advantage to our young folks (and old folks too, for that matter) is knowing how to grasp the good within their reach, and how to appreciate blessings that surround them. The blooming of a century plant is considered so great a wonder that it will attract hundreds to witness the marvel. They willingly incur expense and inconvenience, saying, not again in our lifetimes can this thing be; and they look upon it and retrace their journeys full of reflections induced by having beheld the flower which blooms, but once in a hundred years. Yet, at every eventide they have but to lift their eyes to witness without money and without price a sight of far more marvelous beauty, in a sunset. There they behold a vision of unequaled splendor; gates of Jasper and pillars of Rorphyry; temples of pearl, with domes of saphire; unfathomable depths, stupendous heights; islands of amber in seas of amethyst, indescribable dashes of warm, rich color, all the marvelous glories of cloudland closing the sunbeam gates of day upon the world. With this

sight daily within the lift of an eyelid, how many enjoy it? All counted, how many have you or I seen in our lifetimes? A sunset is not a century plant, it is an every day affair, it can be seen without cost or inconvenience. And it will not glow for us again once in a hundred years. In the infinite resources of nature there is no repetition. The sunset gone, is gone for all eternity; and the one we beheld last night, should we watch the west forever, would never be there again. The sky is the great picture gallery of the world. Its clouds by day, its stars by night, its tempests, its calms, its boundless immensity, its daylight depths, its moonlight effects lie arched above us, winning us if we will from petty carking cares, leading us in the contemplation of its ever changing, ever present scenes out of ourselves, and away from that which wearies, disgusts or degrades. It cannot interfere with any childs studies to make him aware of this, and he can be taught to find pleasure in such things long before he is old enough to be put to books and slates.

We are too apt to neglect the natural bent of our children in the choice of studies. How much more are we inclined to have them taught what it is fashionable to know, than what is best for them to learn. Now with regard to music: It is dished out promiscuously to those who like it, and those who dislike it. A talent for it is just as necessary to its successful acquirement as the gift of poesy to the poet, or oratory to the orator. One cannot become a musician without it. The bulbous root must be planted in the soil if we would see our tulips and gladiolus burst into bloom. Why music should enter so largely into the education of girls, half of whom have a horror of practice, is a mystery, and why it is not more encouraged in boys who have an inclination for it, is still a greater mystery. In every nature there is a thread of poetry or refinement which mingles with the coarser warp of our beings, beautifying without weakening it. In one child we see this thread proving its existence by a taste for music, in another for poetry, in another for art, in another for science. For God sake let us cherish it. The quartz is no less quartz for the vein of gold hidden in it. A man will be no less a man because he loves a ballad or delights in an opera. It is objected that it is encouraging effeminacy in a boy to teach him music. If he loves his piano, flute or violin it will give him a pleasure above those now too commonly resorted too, and which are very questionable proofs of manliness. Whatever conduces to make home pleasant it is proper for children to learn, be they boys or girls. By music, rude passions are softened, and aims exalted. Many a nature has been stimulated to great deeds, or diverted from great wrongs by its magic power. There are two kinds of musicians. Those who compose and perform, and those who are simply listeners. The latter class may love it dearly, and turn to it as one of the sweetest enjoyments of life, yet may have lacked patience, time, money or energy to acquire it as an accomplishment. This is the case with many women. Science demonstrates that the eastern and western continents were originally one undivided body of land, sub-

sequently separated by some great convulsion, and uses as proof, the fact that the projections of one shore correspond exactly to the hollows of the other. Very often, thus we see man and wife, one originating in the other, both from the same great source, composed of the self same elements, divided now by the ocean of sex, yet, in the conformation of each, showing how truly they are adapted to one another; the ruggedness of the man softened by the refinement of the woman; her weakness sustained by his strength, her timidity protected by his courage. A hollow in all the shores of his life for the outreachings in hers; a supply in her nature for every corresponding lack in his. Thus, where the wife is not a musician it is well if the husband be one, for music, as Toodles would say, is a nice thing to have in the house.

As to the piano, its indiscriminate use amounts to an abuse. Society suffers from a violent attack of piano-complaint. Through the caprices of fashion, and a deplorable lack of good judgment a most charming instrument has been converted into an intolerable nuisance. The mere sight of one in certain parlors is sufficient to bring on an attack of neuralgia. Because she sees others learning it, a young girl suddenly conceives the idea that she too, must become a player. The doting parents, in order to be in the fashion, or fearing, perhaps, that they might inadvertently hide a light under a bushel, supply her with a teacher and an instrument. Not an effort is made to discover the childs talent or capability. She sets to work. Her fingers go through the cramps and cholics of elementary exercises; by and by she wades through the first ripple of sound and reaches the deeper tide of harmony. The parent resigns her to the teacher, who possibly in his turn regards her simply as so much added to his monthly income. No effort is yet made to discover if real musical ability or a mere spirit of emulation has stimulated her to go through the ordeal of "taking lessons." She struggles on to attain at last perhaps not even mechanical mediocrity. She is stranded when called upon to translate by her execution the sentiment of a piece—expression is beyond her scope—she arrives at a certain stopping place known as dance music, and can get no further, or her vanity induces her to still believe she can play, and her frantic fingers plunge into all sorts of impossibilities, driving her hearers half mad with their efforts to get out again. All her friends, and she herself, are victims to misplaced confidence; belief in abilities that never existed.

When such a girl is attacked with piano-complaint a severe course of practice strenuously insisted upon often perfects a radical cure. On the contrary, practice to one really desirous of cultivating a real talent will be undertaken with the same cheerful zeal with which one solicitous to acquire a language, masters its alphabet. We see girls driven to the piano day after day who, mechanically, and with sulky faces learn their notes and strike the keys, and devote hour after hour to so-called practice, for what? To give up their music with the first opportunity, and to remember the time spent in

its attainment only as so many hours of bitter vexation, aggravation and torment. I sometimes wonder what becomes of all the lost time—all the hours squandered in the pursuit of false aims—all the lost moments with which our lives are sprinkled as thickly as the milky way with stars. Is some band of gentle angels gathering them altogether into one vast reservoir of regret, into which we shall cast our yearning gaze in our mystic journey beyond the grave, recognizing each one his own, yet unable to recover one precious second of time so remorselessly thrown away? If so, we shall find the study of music has largely contributed to the general fund.

If a performer sees in one of Bethoven's Sonatas or Mendlesohns exquisite compositions only so many printed notes to be represented by so many pounded keys, she might better use the sheet of music for curl papers, and split up her piano for crochet needles. Music is the articulate poetry of a masters soul. The player is the interpreter of the composer. She must study the author, endeavor to discover his most delicate shades of meaning, enter into his fervor of feeling, his sublimity of imagination, his tender pathos, his exalted passions—expression is the rhetoric of music. If she is incapable of understanding this, she has no more capacity for music than she has for bringing down the stars as buttons for her peignoir.

Mechanical dexterity of execution is within the power of all limber joints and patient application; but this is no more to be a musician than riding the winning horse at a race is being the winning horse itself. Where there is a family of children, it is well to have a piano in the house. Let them play with it as they do with their dolls and tin soldiers. They can easily be taught not to injure it, and a very little observation will show you if a real musician be among your little flock with the correct ear and fervent genius for the art necessary to make a good player. This course may possibly spare society the infliction of musical impostors who play with a sort of insane idea that they must thump out of the innocent piano some recompense for the time and money they have wasted upon it. It is sad to think what sums have been expended upon useless musical instruction. There must have been money enough thrown away in this manner to build a palace large enough for all the beggars in the world, provide them with comfortable food and raiment and give them a liberal education.

The thorough training of our girls is a matter of the most vital importance. Upon it depends the happiness of home, the moral excellence of social life, the elevation or degradation of mankind. This has been in a measure already acknowledged the want felt and an effort been made to meet its requirements. We have all sorts of Female Institutes and conscientious teachers; who, with the best good of their pupils at heart, succeed after all only in diverting them from their best good for ever. This cannot well be otherwise while the Procrustian system continues to prevail to such an extent; those intellects which are stretched out to its length, and those

which are chopped off to meet its dimensions being alike victims to those who chance to fit comfortably the rigid couch. We all know of schools where at every commencement day mediocrity is sent out upon the world with a grand flourish of trumpets, while genius, in a straight jacket, cowers in the back ground. It is impossible for teachers under the existing system of instruction to study and bring out individual merit. Star scholars can be found in every school, but the dunces and the stars must trot along in the same harness, until at last they trot out of the doors of the Institute for ever. Next, perhaps, comes marriage. After a while, little ones clustering about the mother's knees. As their minds unfold and their questioning lips begin to turn to mama for information, there gradually dawns upon her mind the conviction that she is incompetent to guide them; that the days of her youth have been wasted; that there has been some terrible mistake about her education. She takes down the diploma hanging, so prettily framed, against her bedroom wall. She received it when she graduated. She remembers she was proud of it then. A doubt now crosses her mind as to whether, after all, she did not leave school with more diploma than education. She hangs it up again with a sigh, and wishes in her heart there were adult schools. She would go to one to-morrow. Unfortunately there are none, and she realizes at the some moment the importance and value of education, and the fact that her opportunities for acquiring one have gone by forever. Then are the little ones, at a time they should have the most careful home culture, sent forth into the hands of strangers. Hundreds of women have the time and money to attend adult schools and would readily patronize such institutions. I think all married women who so desire should be permitted to attend Normal schools, inasmuch as they are bound to be teachers more or less during the entire term of their natural lives. Hence the necessity, as I have said before of impressing upon children, before sending them to school, the value of time, its honest use, and an appreciative sence of educational opportunities.

Girls should, with regard to instruction be allowed every possible privilege. As a country friend of mine says let them have all the learning they will take. Their inclinations or tastes should from time to time be carefully investigated, changes noted, weeds plucked out and every aid brought to bear upon that which is worthy of cultivation. We would do this much for a cotton patch or a cornfield; why not for a human intellect?

If a girl have but one talent, let it be made the most of, if she have ten talents, let every one be trained with special care. We might take a hint in this respect from even so low a source as the prize ring. See how the trainer disciplines his man. How his diet and exercise are regulated, his blood kept cool, his progress watched, his flesh kept down and muscle developed, until the healthful condition of the pugilist is brought up to the highest physical standard. Could we but have such mental trainers, there would be

fewer intellectual failures and a far more satisfactory state of society.

Without in the least degree being an advocate for woman's rights—so called—I would have a girl taught everything she can learn. If she desires to study Greek and Latin, Theology, Physic or law, I would offer her every encouragement. God has planted the taste in her nature, she will have use for it some day. I would not stint a a mind in its thirst for knowledge merely because it happens to be a girls mind. It is destined at last to be her solace or salvation or to work out the good of some other being entrusted to her care. Girls should be educated to be independent of marriage. They are not all sure of husbands. To rear them to look forward to matrimony as their sole aim and ambition is degrading. At the same time it is the girls and not the boys who are to make wives and mothers when any are made, and into their hands fall all the keys to true domestic happiness. Their knowledge and accomplishments make the hearthstone attractive, their taste and elegance gives tone to the atmosphere of home. In this connection I would allude to the necessity of girls acquiring the art of conversation as a fascinating and peculiar charm. There is a great deal in knowing *how* to talk which includes a talent for knowing when to stop. Many a girl is made to study half a dozen languages—is *stuffed* with them, only to let them fall from her with her school dresses. In the ardor to make her a linguist the necessity of cultivating ideas has been forgotten. She has lots of languages and nothing to talk about. We are apt to say just think of the advantages she has had yet see how she appears: She cannot even contribute her share to general conversation. Well, we might as reasonably expect a steam engine to run because we have filled the boiler with water, notwithstanding we have neglected to build any fire in the furnace. The plan of Margaret Fuller Ossoli, inaugurating conversation schools was excellent. We wish there were many in existence. Once taught to think, to discipline the mind, and conversation is easy. Then the value of lingual attainments is readily discerned and prized in proportion. Whatever Talleyrand may have said, the generality of men do not prefer such wives as his. An intelligent and educated wife is the pride of a wise mans heart, and such an one opposite him at table, or reigning in his drawing room add a tenfold charm to the attractions of his home.

Moreover the now prevailing fashion, which seems to me a very unfair one, for the husband and father to be the sole producer in a large family of consumers will have passed away. For a man to bear all the heat and burden of the day to keep a frivolous wife and daughters in idleness will be regarded in its right light. Wives and daughters will contribute in numerous ways to the general support and be all the happier for it. Honey bees can enjoy life as much as butterflies. For instance, mothers make the sweetest teachers in the world to their own children, yet where do we find a family that the little ones, at the tenderest age, are not shoved out

to public or private schools very much as pigeons shove their squabs out of the nest. Now a woman may resign her washing and her cooking into the hands of competent servants with impunity but the tender intellects of her children, and the pure unwritten tablets of their hearts let her beware into whose hands she allows them to pass from her own holy keeping. She knows the peculiar temperament of each. She is aware that little golden haired Puss is sensitive and shy and needs encouragement and praise and love. She knows that saucy, brave, defiant Jack, needs a stricter rule and a steadier rein. Who could manage these two natures like a mother? She will find the task delightful. Directing their studies is a review of her own; and I know of an instance where a mother properly educated has fitted her son for college and her daughter for the seminary as no one else could. From such hands children go forth clothed in an armor invulnerable to the shaft of temptation and vice.

A woman may become a widow. Is there any reason why she should have only the most menial and unremunerative resources to which to look for support? Is she not as capable of being as good a book keeper as a man? If she has studied architecture, is she not as able to make a living by it, and ought she not to be as well paid for it, as if she wore a beard? Would furnishing a plan for a cottage or a cathedral be a very unwomanly pursuit? Brain has no sex. Without aiming to be preachers, or degrading themselves by becoming politicians, stump speakers or in any way overstepping the bounds of womanly delicacy and dignity, there are numberless avenues of support for which women should be fitted and which should be be open to them. Let our girls run more to ideas and less to dry goods, more to culture and less to crochetting, more to brain and less to beaux and the world will be incalculably benefitted. As I heard a wise man say the other day educating a girl is putting education out at compound interest. A moments reflection proves the force of his remark. While the father, save in rare instances exercises no control over the rearing of his children, the mother, in constant contact with her offspring, is continually imparting to them in some shape or another her own knowledge; thus the influence of one woman be it for good or for evil goes on extending itself from generation to generasion.

X.

New Orleans, August, 1868.

ART. XXI.—ROYAL GEOGRAPHICAL SOCIETY.

At the meeting of this Society, the President, Sir Roderick Murchison, in the chair, a paper, by Mr. J. G. Taylor, was read, giving an account of a journey he had performed between Ezzerum and Diarbekr, at which latter place he holds the post of British Consul.

During this journey he traced the course of the Kara Su (river Lycus of the ancients,) ascertained the site of Pompey's Nicopolis, at the modern town of Purk, and discovered a practical road over the high mountain range of the Deyrsim Dagh, well known to the Kizzilbash inhabitants, but not traveled over in modern times by a European. A paper was also read by the Bishop of Honolulu on "The Geography of Hawaii and the Recent Volcanic Eruptions." After giving a general sketch of the Hawaiian archipelago, he described the present condition of the native inhabitants. The whaling trade, he said, happily for the social and moral improvement of the Hawaiians, had fallen off. The total number of vessels entered at Honolulu in 1867 other than whalers was 118. The last census in 1867 showed a decrease of the native population of 8,300 in seven years, while there was an increase of white foreigners of 400 in the same period, the total population being 58,765 natives and 4,194 foreigners. The Hawaiian Government were seeking to encourage everywhere the formation of industrial girls' boarding schools, in order to check the evil of depopulation at its source, and train the future wives and mothers of the race to a higher appreciation of the dignity of their sex. Honolulu is under the isothermal line of 77 deg., and the annual range of temperature is only 12 deg., but the climate is much cooler on the table lands of the larger islands. There is no tropical wet season, the heaviest rains falling at the winter and not at the summer solstice, as in India and Africa. The islands have now an abundance of rich pasture supplied by a very nutritious kind of grass, which spreads along the ground, striking its roots over a large space. In 1867 nearly a million pounds of rice and 17,127,187 lbs. of sugar were exported ; the increase of sugar cultivation and manufacture had been very rapid. The whole archipelago had been lifted to its present great elevation by volcanic agency, and it was remarkable that the subterranean forces had slowly marched from the north-western to the south-eastern extremity of the archipelago, the western islands being the oldest, and the recent volcanic vents being in the south-east. In some of the islands coral beds are found at an elevation of 4,000 feet avove the sea level. The central islands have no longer any active volcanoes, although slight earthquakes are felt. The same direction of the volcanic forces is exhibited in the islands of Hawaii itself, the old craters of the northern part (one of them, Mauna Kea, being 13,000 feet high, and covered with perpetual snow) having long since become extinct. The author described his visit to the pit crater of Kilanea, on Mauna Loa, the seat of the recent great eruption, and exhibited specimens of viteous and vesicular lavas which he had collected. The pit is nine miles in circumference, and its area and depth have generally sufficed to keep the lava from overflowing the surrounding country, which was fertile, and dotted with villages and plantations. The last great eruption commenced on March 27th of the present year; between this date and the 2nd of April 300 shocks of earthquakes were counted; mud eruptions burst

through the soil and burried villages and cattle ranchos. On the 7th of April a new crater opened on the southern flank of Mauna Loa, and vomited forth a stream of lava which flowed towards the sea. A great tract of the most fertile portion of the island was thus in a few hours rendered desolate. The column of vapor which issued from Kilanea was visible at a distance of 120 miles, and was computed to be eight miles in height. A third paper was "On the Physical Geography of Cape York Peninsula, Australia," by Dr. A. Rattray, R. N., surgeon to Her Majesty's ship Salamander, which was engaged during three years and a half in tending the new settlement of Somerset at Cape York. A fourth paper was read, by Professor James Tennant, "On the Geographical Distribution of the Diamond," in which the author gave an account of the recent discovery of diamonds near the Orange River, Cape of Good Hope. In adjourning the meeting to the 9th of November next the President congratulated the society on the successful and instructive session now terminated.

ART. XXII.—THE "NEW FRANCE" BY PREVOST PARADOL.

The following is an abstract from the preface of the "New France" (*La France Nouvelle,*) which has caused so much sensation in France. In four days the first edition has been exhausted :

"The conflicts between the Revolution and the First Empire, our classical education, our relative ignorance of foreign languages and of contemporary history, have unhappily led us to look out at that narrow theatre in which contend the nations of the ancient continent, and we scarcely look now and then at the remainder of the world. It is high time to tear down that blind. Then let us take the map of the globe—let us study it in its whole with an intelligent attention; let us observe the changes brought about since the beginning of this century in the distribution of the human race over that immense space, and let us consider what has been the past of France in that increasing of populations, in that foundation and development of new empires.

"Two rival powers, but only one as to the race, language, customs, and laws, England and the United States of America, are dominating the world, with the exception of Europe, or rather they exist there alone, and once we have passed the European waters, we only stand near those two powers as remembrance. How is it possible not to recollect before such a sight that we could hope once that our race and language, and that the French formula, would be chosen by the European civilization to invade the remainder of the world ? We had every chance on our side. It was France which, through Canada and Louisiana, began to embrace North America ; India seemed to belong to us, and were it not for the mistakes, political liberty could have spared to our forefathers the language and the

blood of France. In all likelihood, it would occupy in the world the place, the language, and the blood of England it has irrevocably conquered; for destiny has spoken, and at least two portions of the globe, America and Oceana, henceforth and for ever belong to the Anglo-Saxon race. Moreover, nowadays a book written in English is much more widely read than if it had been written in our own tongue, and it is with English words that the navigator is hailed on almost all the accessible coasts of the world.

"However, that actual predominance of the Anglo-Saxon race everywhere out of Europe is but a feeble image of what an appraoching future has in store for us. According to the most moderate calculation, founded on the increase of the population during the last decennial period, the United States will number more than a hundred millions of inhabitanes at the end of the present century—without speaking of the probable annexation of Mexico, and of the extension of the American Republic to the Panama Isthmus, Brazil and the several States of Southern America weigh very lightly by the side of such a power, and they will disappear when the masters of the northern continent think proper to extend themselves. The possible, though improbable division of the American Republic into several States, would very little affect that future; for, as soon as they would be separated, the fractions of that immense empire would soon feel the necessity of fortifying and extending themselves. For instance, had the secession succeeded, there is no doubt whatever that the new Southern Confederation would have invaded Mexico much sooner than the reconstituted American Republic will attempt to do it. At all events, the American continent is, in its whole extent, destined to belong to the Anglo-Saxon race; and if we take into account the increase of speed which is so very notable in human events it is very likely that such an important change will be accomplished in the course of about a century or a century and a half.

"It is not the less certain that Oceana belongs for ever to the Anglo-Saxons of Australia and New Zealand, and in that part of the world the march of events will also be very rapid. No doubt the discovery of gold greatly contributed to the rapid increase of the English population in Australia, but immigration has not diminished since the production of wool has become more important than the production of gold. Agriculture will soon predominate, and the plow will soon convert the soil to pasture. Lastly, industry and the merchant navy will show themselves before long, for the Australians will soon be tired of selling raw produce which they can manufacture and ship themselves; already they announce with some degree of pride that they export coals into the ports of the Far East. Most certainly, if the mineral industry is developed, the coals brought at so great an expense from Europe for the wants of the Eastern shipping will be unable to compete with the Australian products. Not only the European colonization of the remainder of Oceana will be their own work (and some day a new Monroe doctrine will forbid old Europe, in the name of the United States of Aus-

tralia, to have a footing on one of the Pacific Islands,) but it is easy to foresee that China, to which they stand dearer than any other civilized nation, will acknowledge them masters sooner or later. It is also certain that the United States will play a great part in the East from the day when their coasts on the Pacific will be in full activity, and when San Francisco, already so commercially busy with the East, will have become a powerful rival in the same quarter of the ocean. But Australia can beat the United States in speed; in any case, she will ultimately contend with the United States for the commercial and political supremacy in the farthest East; for geography has its laws, and when two nations, equally civilized, contend for the commercial or political domination over any part in the world, it is the nearest one which has finally more chance of being successful. Therefore, in all probability China will be for Australia what India has been for England; and should England collapse one day, it is not the less probable that her Indian Empire would fall into the hands of Australia. But let us put aside all those conjectures, although they strike the mind with all the characteristics of truth; and let us confine ourselves to draw from the actual but irrefragable facts the only conclusion that can interest us. Whatever power (the United States or Australia) may dominate in China, India, and Japan, it may be that England maintains her empire in those regions for a long time, or that she abandons it to the young competitors to whom she gave life. Our children are not the less assured to see the Anglo-Saxon race mistress of Oceana as well as of America, and of all the countries of the farthest East that may be dominated, worked, or influenced by the possession of the sea. When affairs shall have reached that climax—and it is not too much to say that two centuries will suffice for it—will it be possible to deny, from one end of the globe to the other, that the world is Anglo-Saxon?

"Neither Russia nor united Germany, in supposing that they should attain the highest fortune, can pretend to impede that current of things, nor prevent that solution—relatively near at hand—of the long rivalry of European races for the ultimate colonization and domination of the universe. The world will not be Russian, nor German, nor French, alas! nor Spanish. For it can be asserted that since the great navigation has given the whole world to the enterprise of European races, three nations were tried one after the other by fate to play the first part in the fortune of mankind, by everywhere propagating their tongue and blood by means of durable colonies, and by transforming, so to say, the whole world to their own likeness. During the sixteenth century it was rational to believe that Spanish civilization would spread all over the world; but irredeemable vices soon dispersed that colonial power, the vestiges of which, still covering now a vast space, tell of its ephemeral grandeur. Then came the turn of France, and Louisiana and Canada have preserved the sad remembrance of it. Lastly England came forward; she definitively accomplished the great work, and England

can disappear from the world without taking her work with her, without the Anglo-Saxon future in the world being sensibly changed. Even in supposing that Russia should possess Constantinople, she will never be able to balance the naval power of the Anglo-Saxons, and her military progresses on the Asiatic continent will be at once stopped when she happens to meet either England in India, the United States or Australia in China. Furthermore, no power, however grand and potent, can pretend to firmly extend its race and blood by domineering over and deriving profit from submitted people, when it is impossible to assimilate them, or to expel them from their native soil, or to replace them on that soil. For instance, had the colonizing work of England been confined to make profit of India, there would not be any reason, even now, that the world should belong to the Anglo-Saxon race. We must always distinguish a factory from a colony worthy of her name. India is but a factory, but Northern America, populated with emigrants, has been an English colony, as Australia is now, and it is through those two strong branches that the English race has taken possession of two continents. Russia could not do that, even in the supposition that her good fortune should encounter no obstacle. Firstly, there is nothing to prove that the Russian race is naturally emigrant and colonizing; besides, the countries which can be usefully colonized, and that can be still occupied in the world, are without importance compared to the two American and Australian continents invaded and definitively acquired by the Anglo-Saxons.

"And it is owing to the second motive that united Germany cannot entertain the hope to counterpoise the Omylo-Saxon in the remainder of the world; for, on the one hand, Germany is popular and prolific for emigrants, and on the other—supposing that her great fortune should be completed according to her own wishes—she would have with Holland, (as she has already with Hamburg) a navy and a population of sailors at her disposal. But Holland could bring to united Germany but factories like Java and Sumatra, and could give no space proper to the foundation of a truly German colony. Therefore it is very probable that the tide, so rich of German emigration, would continue to flow, without any profit for the metropolis, into the veins of the Uuited States of America, which have absorbed them till now. Moreover, should Germany, always jealous and proud, rosolve to direct that tide of emigrants towards some war colony over which her flag should wave, that war state, the situation of which is not easily to be ascertained, would never counterbalance the American and Australian continents, henceforth belonging irrevocably to the Anglo-Saxon race.

"Thus we can foretell through imagination that future situation of the world, and glance at that picture, the main lines of which are, so to say, already sketched by the hands of fate. And if we are inclined seriously to ask ourselves in what time earth shall have taken that new form, we shall easily perceive that two centuries are scarcely necessary to bring to its apegee the Anglo-Saxon grandeur

in the Oceanian region as well as on the American continent. That greatness once established, no one shall be able to menace it from without, like that Rome, which was surround on every side by a barbarous world. There are no more barbarous nations, and the race which will be invested with the guidance of mankind will have to fear neither the competition nor the appearance of a new race.

"At all events, what is the part of France in that pacific or warlike future? If a great political and moral change does not occur in our country; if our population, obstinately bound to the native soil, continues now to increase with an extreme slowness, then to remain stationary, or to decrease, as happened during ten years, we will comparatively weigh in the Anglo-Saxon world as much as Athens weighed in the Roman. We will continue to be the most attractive and sought for society in Europe; will still shine with the most brilliant flame in the assemblage of the Old States, as did ancient Athens amongst the cities of fallen Greece; for Europe will then be, as a whole, very like Greece at the time of its weakness, and in supposing even that Germany may be able to dominate a long time over Europe, that domination, out of the European continent, would be put on the same level as the domination of Macedony. What people except Greece thought of it, over them the dazzling attire of Rome had risen in the horrizon. Literature, wit, grace, and pleasure will then reside with us; but life, power, and solid glory will reign elsewhere. Our language, manners, and writings will always be appreciated, and our history, which will have remained familiar to all enlightened men of this new world would afford to future generations, as the history of Greece did in the Roman schools, literary models to follow and political examples to avoid.

"Are we to accept without a mighty effort such a future? and will it suffice, to console ourselves about it, to say, as I often hear it repeated around me (not without a feeling of shame), that we are not to make ourselves uneasy on account of events to occur two centuries hence, and that we should deem ourselves very fortunate not to be obliged to personally witness the downfall of our country? Withal, what are two centuries in the history of a nation, in the supposition that events may not follow more rapidly? Let us see how little two centuries affect the history of a nation. Let us see how widely that space, lengthy but in appearance, narrows itself if one reckons the accomplished events and the vivacity of one's remembrances. Just two centuries ago—between 1667 and 1668—Louis XIV conquered the Flanders and the Frank country; Racine wrote 'Andromaque' and 'Les Phideurs,' and 'Britanicus' in the following year; Moliere gave 'Tartufe' to mankind. Do not those great events seem to us as if they had happened but yesterday? Can we not easily return to that epoch through a few generations? There is but one step between the actors of our revolution and Voltaire and Rousseau, moreover, both were cotemporaries of Fontenelli, who was only ten years of age when happened the wide con-

quests, when were accomplished the admirable works, I have alluded to. That past, which pursues us so close, ought to let us understand the imminence of the future. Shall we, after all, imitate Louis XV, when he said: 'after me the deluge?' And shall we remain completely indifferent to the fate reserved to our grand children?

"However, let us see what means are left to us to assume in that world so renowned a part longer than an honorable souvenir; something else than the respect due to our past—that is to say, a material situation and a physical strength worthy of our legitimate prowess; powerful enough to still command a certain consideration amongst the nations, and to surround the glorious name of old France with sufficient respect. When the present chief of our country said that the rank of a nation was to be measured by the number of men she can put under arms, he only gave a form too absolute to a just idea; for we must take into account the relative worth of the men as well as their number. For instance, Xerxes managed to put in the field a far greater number of men than Greece, and yet Greece vanquished Xerxes, because her soul was greater. But when it is a question of nations equally civilized, and of brave citizens equally supported by the feeling of honor, that maxim becomes quite true; and it is to the most numerous nation that inevitably belongs the military and political ascendancy, with all the material and moral advantages inherent in it. Therefore, all schemes and all hope to preserve to France her rank amongst the world, must be deemed as absolutely chimerical; if those hopes and those schemes are not founded upon that maxim! 'The number of Frenchmen must be increased rapidly enough to maintain a certain counterpoise between our power and that of the other great nations of the world.'

"Therefore, forty millions of Frenchmen, concentrated in our territory, cannot be a counterpoise to the fifty and one million of Germans that Prussia will perhaps concentrate on our frontiers, nor to the increasing population of Russia in a little longer time. But how much that figure of forty millions becomes insignificant when we reckon the total of men speaking the English language that will cover the world when the United States shall have attained their full development; when the Anglo Saxon States of the Oceania will have reached their complete prosperity. How is it possible to ensure to us the necessary increase of population, and to find out consequently the augmentation of territory indispensable in order that the name of France shall still be respected throughout the world.

"Algeria would be the source of this new France; and a hundred millions of Frenchmen, established on both sides of the Mediterranean, would resist the Anglo Saxon current. If a political and moral change does not take place in France; if our population, obstinately attached to the rural soil, continues to increase with painful slowness, so long as we remain stationary or decrease we shall weigh relatively in the same proportion in the Anglo Saxon world as much as Athens did formerly in the Roman. Literature, wit, grace and pleasure will reside with us; life, power, and solid glory elsewhere."

ART. XXIII.—DEPARTMENT OF AGRICULTURE.

While the crop prospect of Virginia, Maryland, and of the grain growing States of the Mississippi Valley are very promising, we give the state of the cotton crop as reported at this date, and also of the sugar crop as estimated by the best authorities in this city. It is proper to state that the heavy rains which have fallen within the last week in some portions of Georgia may affect the crop somewhat, locally, but not materially. We are inclined to estimate the present crop at about the same aggregate figures as the last, because while the season has been a very good one, and the labor is doing perhaps better than last year, the old lands are declining, there is no new land being cleared, and the breadth in cotton is not so great as last year.

1—SOUTHERN CROPS.

New corn is selling in Alexandria at fifty cents per bushel.

The army worm has made its appearance in Sumter and Marengo counties, Alabama, in large numbers. The cotton has been badly stripped.

The Chambers (Ala.,) Tribune, of the 18th inst., says not more than half a crop of corn will be made in that county, and that the cotton crop is promising, but the weed is small.

The Mansfield Times of the 22d, says: "Some of our planters are now engaged in picking cotton. The Caterpillars have done but very little damage yet. Boll worms, however, are doing serious injury."

The Claiborne, Ala., Herald says: "For the past week we have had some beautiful weather for fodder pulling, etc. Cotton is doing very well at present, with the exception of the river lands, where the caterpillar is reported as doing some harm. From all accounts, we suppose there has been corn enough made in the county to supply the wants of the people."

The Winnsboro' Sun, of the 22d, says: "Our planters are very hopeful of the cotton crop. The worms are noticed in the fields, but are doing no harm, and the impression is that they cannot come in force in time to do any harm this season. The staple is opening finely, and many are actively picking cotton. The negroes are working well, and more contented than ever before. Rather more rain is falling than is needed."

From Octibbeha county, Mississippi, the Starkville New Era, furnishes the following: "From every portion of the county we hear that the worm is making sad havoc with the cotton. A month or more ago, before these continuous rains, the prospect was very fine and promised a splendid yield. The rains set in, causing the cotton to shed largely, and now the worm makes the prospect for cotton very gloomy. The corn crop is good, but the rains have prevented the saving of more than half, if that much, of the fodder."

The Alexandria Democrat of the 26th says: "Last week, up to Friday morning, was a showery one; partial damage to the cotton has been sustained in consequence. Since Friday morning the showers have ceased, and we are having very cool and quite unseasonable weather. We can hear of the catepillars on Cotile—they are doing some damage, but have commenced webbing up. The second crop of these cotton destroyers will not be along before the 15th of next month, and our planters are sanguine that they cannot do much harm. Picking is now in full blast and progressing finely and rapidly. Five bales of new cotton were shipped last Thursday, and much more could have been shipped ere this, but our planters cannot spare the present precious time to gin and press out their cotton."

The Natchitoches Times, of the 22d, says: "The corn crop throughout the parish is now made, and it is sufficiently heavy to supply the people bountifully. Cotton is well advanced and very promising, but the gravest apprehensions are

felt of its destruction by the catepillars within a few weeks. Throughout the parish these pests have appeared, and on several plantations are injuring the crop materially. However, our friends assure us that, under the most unfavorable circumstances, a half crop of cotton will be made; and if not eaten up before the 10th of September, the date generally fixed for the destruction of the crop, possibly two-thirds of the anticipated yield may be gathered."

We hear of both army and boll worm in Jefferson and Claiborne counties, Miss. The damage in the latter is not yet great; in the former it is very considerable. From the rich prairie region of Noxubee, the Macon Beacon of Saturday brings the following disagreeable intelligence. The Beacon says: "The crop has been gathered in this section, and all the trouble is over. Never before was the worm so rapid in its destruction. Nobody thinks of asking if the worm is in the cotton, for it is all in the worm. Sand hills and prairies are alike, and there will scarcely be enough left for seed. In some localities a fire could not have been more destructive than was the worm, and it was done so quickly that some farmers did not know they had the worm until they were half eat up."

[*New Orleans Crescent, Aug.* 29.

2—ALABAMA CROPS.

The Selma Times, of the 19th inst says: The army worm is committing its ravages in almost every cotton field in this portion of Dallas county. And, more serious still, we hear of the boll worm in many sections. In some fields all the smaller bolls are destroyed already. Between them we greatly fear the crop in this county and the counties adjoining at least will be cut short.

From the Montgomery Picayune, of the 18th, we copy the following:

Reports from all points in Alabama indicate that the land planted in cotton is one-tenth less than last year. With a long spell of dry and favorable weather, planters were able to put in their crops in excellent condition, and were well prepared to receive the rains. The drouth had checked the growth, and the cotton plant was small, but heavily laden with fruit. From the 15th of July to the 6th of August heavy and continuous rains fell. On the low lands there is great complaint, and the crop will amount to nothing. The worm has made its appearance in some places, but has done but little damage so far. It is thought the crop will be equal to last year.

The cotton crop of Henry county is an almost total failure. The army worm has appeared in Sumter and Marengo counties, and the cotton has been badly stripped. It is stated that not more than half a crop of corn will be made in Chambers county, but that cotton is promising, though the weed is small.

The Union Springs Times reports: We have advices from reliable planters, from Ridgeley, the Ridge, Midway, Sardis, Bug Hail, Bruceville and along Conecuh. Corn will fall below early expectations of yield, but will be sufficient for home coosumption. In some places cotten is rusting slightly; on the low lands it is drowned out. The worm which has appeared in some places is the grass worm, which does no damage to cotton. The most serious shortening of the crop is to be feared from the overgrowth of weed and lack of bolls. An average crop may be made, but the chances now are for a short yield.

The Eufaula News, of the 20th, says: We still hear of the ravages of the boll worm and catepillar. Mr. E. Catterville showed us a few day ago some of the insects in the first and second stages. He says his field, and those of his neighbors, are covered with them, and thinks their early appearance, and in such numbers, must prove disastrous to the crop, at least in this section.

The Eutaw Whig says: We learn with regret that the army worm, or real cotton catepillar, is playing sad havoc with the cotton on some plantations in this section. It is said to have made its appearance fifteen days earlier than the time of its appearance last year, and will by so much exceed that year's devastation.

From the Mobile Register, of the 24th, we copy the following:

We have been furnished with the following extract from a letter written by a gentleman now at his plantation, in Greene county, just after his return from a pretty extensive tour through the interior of the State:

"You may tell it to the commission merchants, and publish it in the newspapers, that the cotton crop is a failure. Really, I do not think one-third of a crop will be saved. I wrote you that I found the crops in Hale, Dallas and Perry very sorry; but this only half expresses it. In some farms the caterpillar is sweeping everything green, and the boll worm is taking all the top crop, so that nothing is left but a very small bottom crop. I went out in my farm to see what the worm was doing for me, and I found almost every square flared open, and, on looking at it, found it pierced with a round hole. This is sad to tell, but it is true, and no mistake.

"In many places the corn was cut off by the drouth. In Talladega the crops, both of corn and cotton, were better than I saw anywhere else in all my travels."

[*New Orleans Picayune.*

3—LABOR SAVING MACHINERY.

Hon. John Stanton Gould, from sources of knowledge which are opened to him as President of the New York State Agricultural Society, writes as follows:

1. There are 300,000 mowers and reapers in use in the United States.
2. The average cost of mowing machines is $125; of reaping machines, $175.
3. The average life of a machine is five years; some will use a mower or a reaper twenty years; but the average number of farmers buy a new machine once in five years.
4. Of the 300,000 machines, five-tenths are combined mowers and reapers, three-tenths single mowers, two-tenths single reapers.
5. Assuming that meadows yield one ton to an acre on an average, one man with a scythe will mow an acre a day.
6. With a sickel, a fair day's work is half an acre; with a cradle, in wheat, two acres; in rye, one and a half acres; in oats, two and a half acres; in barley; two and a half acres. It is possible, perhaps, that the average work with a cradle may be put half an acre higher than the above.
7. A mowing machine will cut, on an average, ten acres, and a reaper will reap ten acres.
8. Six binders will keep up with a self-raking machine.
9. It is well settled that a mowing machine will cut closer and give more hay than a scythe. A reaping machine will also cut cleaner than a cradle or a sickle. I know of no experiments made with a view of accurately testing this difference, but I think it would not be overestimated at 5 per cent.
10. I estimate the total production of hay in the United States at 25,000,000 of tons; the amount raised in New York at 400,000 tons.
11. I estimate that 15,000,000 acres were sown in wheat in the United States, 2,000,000 acres in rye, 900,000 acres in oats, 1,000,000 acres in barley, making an aggregate of 27,000,000 of acres.
12. The average length of time occupied in securing the hay and grain, I estimate to be between six and seven weeks, in the United States.
13. It follows from this that the mowers and reapers in the United States dispense with the labor of about 200,000 men for about six or seven weeks in a year.

Our age is characterized by the grandest development of mechanical power ever known in the history of the human race. The entire machine power of the United States, is equal to the labor of two hundred millions of men. It is owned, of course almost exclusively by the North, and is the secret of the great prosperity of that region, as compared with the South. It is not however equal to the development of such power in Great Britain.

The machine power of England and Wales is competend to perform the labor of nearly six hundred millions of men; and is probably greater in productive capacity than the labor power of all the world besides.

This mechanical power, wherever developed and wherever possessed, it placing the communities employing it far in advance of others in wealth, population and political and financial power. This form of industrial energy began to take

growth in England about one century ago, when that country was yet almost exclusively agricultural, when it exported largely of manufactures, when its industrial interests were all in a languishing condition. So vast is the present capacity of Great Britain for production and for the execution of labor, that it can underbid the whole world in the sale of merchandise; and even the enterprising and beautiful Northern States of America, notwithstanding the aid derived from the highest tariff ever enforced, are about to experience a financial collapse, in consequence of an excess of imports over exports in their foreign trade; an excess amounting to several hundred millions of dollars per annum. So completely does this tremendous machinery power secure to Great Britain the command of trade and tribute of the world, that other countries have to reverse their previously received axioms of political economy, in order to protect their industrial interests from crushing opposition of so colossal a power.

EDITORIAL.

BOOK NOTICES.

UNDER THE STONES.—A publication for the benefit of the childrens' ward in St. Lukes Hospital, New Orleans, by Cora Alice Townsend. We are not sorry to learn from Mr. Graham that the first edition of this charming little volume is nearly exhausted. It is a known fact that it has received at the hands of the public the appreciation which it deserves, and we hope it will secure the publication of other editions. We feel some hesitation in encouraging so very young an author in pursuing a path so unprofitable in all save the happiness of expressing personal convictions and diffusing personal acquisitiens for the common good; but the natural style of this little work, and the obvious capacity for accurate observation and correct description which it developes in one so young, indicates qualities of mind and thought which may develope into great usefulness. We are glad, moreover, to see the Southern mind directed to scientific and practical subjects. Southern writers on metaphysical and political subjects, Southern scholars, poets and novelists of the purest genius and brightest acquirements are not uncommon, but Southern talent devoted to applied science is very rare, and writers who at the early age of Cora Alice Townsend dedicate themselves to botany, entomology and physical philosophy are very uncommon in any country.

We are requested to add DeBossett & Co., Wilmington, North Carolina, to the excellent references of H. T. Bartlett & Co., General Agent, for the Iron Cotton Tie.

ANNUAL MARKET REVIEW OF NEW ORLEANS FOR 1867-8.—We have postponed the issue of the REVIEW, that we might present our readers this important document. It will be found to comprehend also much information on the agricultural product and prospects of the planting States of the South. It is taken from a well established commercial organ, of New Orleans, the New Orleans Commercial Bulletin, and is an able and elaborate review of the commerce and agriculture of that city, and of the trade area which supports it. We feel that the value of this document will amply indemnify all our subscribers for the delay which has attended its production in the REVIEW.

WARD FEMALE SCHOOL, NASHVILLE.—We take pleasure in commending this institution to parents who wish to secure for their daughters a mental culture and a moral care equal to the Southern standard of womanhood. Nashville is a healthy city, with refined society and easily accessible to the pupil from all sections of the country.

TOWNSEND AND LYMAN are intelligent, responsible and honest Stock Brokers. Perfectly familiar with domestic and foreign securities and circulation, and having access to the best source of local information; correspondents cannot do better than commit orders to them.

DEVLIN & Co., are among the largest clothing establishments in the United States, and desire that all Southern merchants, visiting or ordering stocks should inspect their stock, or catalogue of styles and prices.

ART.—XXIV.—ANNUAL REVIEW OF THE NEW ORLEANS MARKET.

SEPTEMBER 1, 1868.

In giving our customary Annual Review of the New Orleans market we propose to notice the course of the leading articles of our trade as briefly as possible, consistently with a succinct, yet sufficiently comprehensive report of their general movement, as well as their variations in prices and relation to other markets. Before, however, proceeding to details we cannot forbear a few remarks suggested by the occasion.

Our commerce must still be regarded as in a transition state. The changes it has undergone since its partial suspension during the war are hardly less striking than those in our political condition. The revolution in our system of labor leaves the agricultural classes limited means for the reconstruction of their former industry. The interruption to the natural channels of trade by the blockade and other hostile measures has deprived us of important sources of business which found new outlets by the interior lines of transportation from the West to the Northern Atlantic ports. The recuperation of our Cotton and Sugar culture and the recovery of our lost trade have been constant subjects of consideration, not only among our merchants, but with all other classes of the community. At no previous period, in fact, have these matters been more fully and freely discussed by the press, and at none have more strenuous efforts been made to promote the planter's interest or restore our commercial prosperity. The former have been to some extent defeated by the want of capital, and the latter by the increased facilities offered to the West by Northern enterprise. It is only necessary to reflect one moment upon the cost of reinstating a ravaged plantation in its former condition, with fences and buildings, as well as with agricultural implements and machinery, to see that a large amount of capital is required for these purposes alone. But even when they are accomplished the planting of cotton is attended with no immediate returns, but a constant outlay for laborers' wages, provisions, clothing and other necessaries until the gathering of the crop, when there is the additional expense of baling and forwarding to market. And so with regard to sugar. Its culture is a constant drain upon the resources of the planter until the crop is ground and sent forward for sale. The efforts to effect these objects usually exhaust the means and resources of the planter long before the harvest, and he is compelled to rely upon the factor for the necessary advances to enable him to complete the work. And here it is that the most serious obstacles intervene. The active capital of the factor is soon absorbed, and without aid from the banks or other capitalists for the requisite funds to carry him through until he can reimburse them from the proceeds of the crop, he is forced to withhold the essential assistance needed by the planter.

The want of the pecuniary facilities we have referred to has undoubtedly materially checked product on, to the common injury of all classes directly or indirectly interested in our great staples. Capital is required not for the purpose of speculation—not to enable the large holders to stand aloof and force up prices by keeping back their supplies—not for the purchase of land—but to pay the indispensable charges incurred in the cultivation of the plant or the cane, to be returned from the sales of the crop. The chief risk the lenders assume is from the weather, or overflows, or similar casualties, and for these they ordinarily leave an ample margin. The subject is one that invites full consideration from Northern and European capitalists, to whom such loans offer high rates of interest, with the important advantage of promoting an agricultural industry from which they formerly derived large profits and which they may again make equally remunerative.

Some important measures have been adopted for the recovery of the Western trade diverted from us by the interior routes to the East. Among these we notice the reduction of river freights by barge-transportation and by steamers specially built for the exclusive transportation of produce; modification of nearly all the charges to which the latter is subject at this port, whether for transhipment or sale; the erection of grain elevators and drying machines and numerous steamship lines for Great Britain and the continent as well as for Northern Atlantic ports. It can be now demonstrated that produce can be forwarded through this port at lower charges than at any other, and that the river and ocean route from the West to the Northern Atlantic ports is the cheapest and most desirable for the largest and most productive districts of the Northwestern States.

Notwithstanding these advantages to the Western farmer, our receipts show a serious falling off even from last year, in many articles of Western Produce. The decrease in Flour, for example, is 62,259 bbls., (859,866 bbls., against 922,125,) in Corn, 1,037,633 sacks, (1,672,288 against 2,709,921,) in Oats, of 218,343 sacks, (359,274 against 576,667,) in Bran, 78,807 sacks, (13^,195 against 218,002,) in Pork, 13,543 bbls., (146,472 against 159,519,) in bulk Pork, 260,340 lb. (688,010 against 948,300,) in Bacon and Hams, 23 035 packages, (43,147 against 66,182,) in Lard 2925 tierces, (29,452 against 32,377, and 8754 kegs, (40,004 against 48,758,) in Butter, 7242 packages, (16,850 against 24,092,) in Cheese, 28,398 boxes, (36,669 against 65,067,) in Candles, 8768 boxes, (62,709 against 71 537,) in Eggs, 4554 bbls., (13,331 against 17,885,) in Whisky, 23,8.9 bbls., (11,760 against 35,599,) in Apples, 35,224 bbls., (51,110 against 86,.34,) in Bale Rope, 21,533 coils, (3660 against 2o 193,) in Onions, 20,929 bbls., (5708 against 26,840,) in Potatoes, 67,563 bbls., (154,174 against 221,742) and in malt liquors, 7309 bbls., (15,329 against 23,238.) On the other hand there has been an increase in Wheat of 33,717 sacks, (34,242 against 505,) in Corn Meal of 9154 bbls., (55,9^7 against 46,723, in Beef of 1567 bbls., (870 against 7117,) in Kentucky Bagging of 1606 pieces, (8613 against 6847) and in Tobacco of 3306 hhds. (15,413 against 12,107.) The large falling off in Potatoes, Onions and Apples, may be ascribed to the market being supplied by plantation products. The same remark applies to Corn and some other articles. The decrease in Whisky is owing to the demand being freely met by the product of Southern distilleries, and the falling off in consumption under the two dollar excise. The receipts of Corn include 125,768 bushels brought down in barges in bulk and transferred to sea-going vessels by elevators on board the steamer, which, we trust, is the commencement of a trade that will soon assume much larger proportions.

COTTON—The year commenced on the 1st of last September with a stock on hand of 15,236 bales, against 102,062 bales at the corresponding date in 1866. Deducting from this amount the lots on shipboard not cleared or in course of shipment, left a very small supply, which was so badly assorted, with such a preponderance of the inferior qualities, that brokers found great difficulty

in executing the few orders pending, and were compelled to pay disproportionately high prices for the better grades, middling commanding 27c., low middling 24@25c., good ordinary 22@23c., and ordinary 19@21c., the three first grades being 6@9c. lower than on Sept. 1, 1866. This heavy reduction had been accompanied in 1866 with serious losses to most persons engaged in the trade, and the new crop commenced coming in under the disadvantage of meeting a general reluctance to operate in the staple, and with the business mostly confined to the execution of a few foreign and Northern orders. Prices, consequently, continued their previous downward tendency, declining during the three first weeks of the month about 1c. ₱ week, and in the fourth week abruptly giving way 2½@3c. Hence, at the close, middling was quoted at 21c., against 27c. at the commencement, and low middling at 18½@19c., against 24@25c. The supplies of new were limited. The first regular receipts were on August 19, and up to September comprised only 19 bales; but it was supposed that shipments were prevented by the prevalence of the epidemic in the city, and that on its subsiding there would be more than the usual in rease in the arrivals. At the same time, the crop question was the controlling element in the market, pressing down prices at Liverpool, where the trade counted on from 2,250,000 to 3,000,000 bales, while on this side public opinion settled on 2,250,000, with estimates as low as 2,000,000 and as high as 2,500,000. The result shows that the medium estimates were nearly correct; but with the extravagant ideas prevailing in Liverpool and Manchester, the views entertained on this side appeared to be entirely disregarded. The accounts which reached us at this port were at the same time calculated to strengthen the confidence of those who looked for not more than 2,350,000. The reports from all our tributary districts were highly discouraging; those received at Galveston were of a similar tenor, and it was supposed that they could hardly be offseted by the increase anticipated at Mobile, Savannah and Charleston. But, although our factors were inclined to maintain their previous position firmly, in which they were aided by the limited supply, yet it was impossible for them to contend against the combined influences that depressed the market, the more so as the orders that came out from Liverpool were constantly at lower limits. Prices, consequently, exhibited considerable irregularity, and at the close of October the quotations for low middling showed a net decline during the month of ½c., while good ordinary was rather stiffer. With copious receipts in November, factors were compelled to meet the demand more freely; and the accounts from New York and Liverpool being decidedly discouraging, foreign exchange giving way with the downward course of gold, and there being no little pressure in the money market, prices gave way from ½@1c. ₱ week, until at the close of the month good ordinary was quoted at 14½@15c., against 17@17½c. at the commencement, low middling at 15½@15¾c., against 18@18½c., and middling at 16c., against 19c., showing a total reduction for the month of 2½@3c. ₱ lb. This downward tendency continued to prevail with but few exceptions throughout December, and although it was checked by every possible effort on the part of factors to sustain the market, predicating their pretensions on the moderate supply, and its being manifest that they were mistaken on the other side with regard to the extent of the crop, yet they were compelled to make further concessions of 1½c. ₱ lb, which brought down our quotations to the lowest point, as shown in the following table of prices:

1867.		Good Ordinary.	Low Middling.	Middling.
Sept.	1	22 @23	24 @25	27 @—
..	7	21½@22½	23½@24½	26 @26½
..	14	21 @21½	22½@23¼	25 @—
..	21	19½@20½	21½@22	23 @23½
..	28	16½@17	18½@19	— @21
Oct.	4	16 @17	17½@18	— @19
..	11	16 @16½	17⅛@—	18¾@19
..	18	16 @16½	17⅛@18	— @19
..	25	16 @16½	17⅛@18	18¾@19
..	31	17 @17½	18 @—	19 @—
Nov.	8	— @17½	18 @—	19⅛@20
..	15	16¾@17	17⅛@—	18 @—
..	22	15½15¾	16 @16¾	— @16¾
..	29	14 @14¾	14¾@15	15½@15¾
Dec.	6	14½@14½	— @15	15⅛@—
..	13	13½@13½	14 @14¾	— @14¾
..	20	13½@13¾	14½@14½	14¾@15
..	27	13¾@13½	13¾@14¾	— @14½
..	31	13¾@13¾	14 @14¾	14½@14¾

The Liverpool market during the same period ruled as follows:

		Middling Uplands.	Middling Orleans.
September	1	—@10¼d.	—@10½d.
..	7	—@10	—@10⅜
..	14	—@ 9½	—@ 9⅝
..	21	—@ 9½	—@ 9⅝
..	28	—@ 8¾	—@ 9
October	4	—@ 8½	—@ 8¾
..	11	—@ 8¼	—@ 8½
..	18	—@ 8⅜	—@ 8⅝
..	25	—@ 8¾	—@ 9
..	31	—@ 8¾	—@ 9⅛
November	8	—@ 8½	—@ 9
..	15	—@ 8½	—@ 8¾
..	22	—@ 8¼	—@ 8½
..	29	—@ 7⅞	—@ 7⅞
December	6	—@ 7⅞	—@ 7⅞
..	13	—@ 7⅞	—@ 7⅞
..	20	—@7 ⅞	—@ 7⅞
..	27	—@7 ⅞	—@ 7⅞
..	31	—@ 7⅞	—@ 7⅞

In comparing the course of our market with Liverpool, it must not be overlooked that the former was affected not only by the fluctuations of the latter, but also by the rates for foreign Exchange, the tenor of the New York accounts, the state of the money market, the quotations for freights and the extent of the supply. The entire movement for the four months noticed is shown by the following:

	Receipts.	Sales.	Exports.
September	8,042	5,250	6,875
October	31,566	26,750	11,584
November	90,062	67,000	43,475
December	147,814	124,000	119,200
Total	277,304	223,000	181,134
Last year	343,502	337,800	221,502

The exports as above, embraced 63,450 bales to Liverpool, 1134 to Cowes and a market, 36,951 to Havre, 18,757to Bremen, 4587 to Hamburg, 15,304 to Spain, 1113 to Italy, 5785 to Mexico, 11,217 to Boston 30,040 to New York, 2304 to Philadelphia and 2 to Baltimore.

The favorable turn indicated by the advance of ⅛d., noted on December 31, was followed by an upward tendency, which continued, with some few fluctuations, throughout the ensuing four months, and was stimulated in January by moderate supplies, favorable accounts from Liverpool and New York, the course of Gold and Foreign Exchange, and increased competition among buyers. Under these combined influences, factors were enabled to establish an advance of 1⅛c during the first fortnight, and 2⅛c. subsequently, low middling closing on January 3 at at 17⅛@18c., against 14@14⅛c. on December 31st, and middling at 18⅛@18⅜c., against 14½@14¾c. The demand was active, nearly everything being taken as soon as offered. The accounts from Liverpool were still more favorable in February. An active demand from the trade—as well as from speculators and for export—pressing upon a diminished supply, accelerated the upward movement, which resulted in a net advance for the month of 1½d. Under this intelligence our own market rose to a corresponding extent, low middling ruling on the 14th at 19@19⅛c., against 17⅛@18c. on the 1st, and middling at 19⅜@20c., against 18⅛@18½c., while the former closed at 20⅛@20¼c., and the latter at 21@21½c. The upward movement, as well as the demand, was checked in the latter part of this month by increased difficulty in passing Foreign Exchange. Before the advance in prices bankers felt confident of an early reaction, and were willing to take bill of lading bills, with a fair margin, without special regard to signatures, but they were now distrustful of the improvement being maintained, and to guard against an unfavorable turn, required strong names at both ends, which compelled some parties to temporarily withdraw from the market. The business, nevertheless, was on a liberal scale. Early in March the supply question in England assumed rather a gloomy character. With an admitted falling off of half a million of bales in the stocks of Liverpool and on this side, there was a deficiency in the amount afloat of 40,000 bales, while the excess of stock held by the trade was but little more than 100,000 bales. Moreover, consumption showed a considerable increase, while the accounts from India were far from encouraging. There was consequently a further advance during the month of fully 2d. ₱ lb, which was responded to in our market by an improvement of 2@2⅛c. during the first fortnight, and 3⅛c. subsequently, low middling closing at 26@26½c., against 20⅛@20¾c. at the commencement, and middling at 27@27½c., against 21⅛@21½c. Our own receipts in the meanwhile were rapidly falling off, comprising only 92,458 bales in March, against 122,598 in February, and 41,773 in April, the stock running down from 105,803 bales on February 29th, to 75,830 on March 31, and 56 696 on April 30th. Under these circumstances, factors were still more stringent in their pretensions, which appeared to be fully warranted by the number and extent of the pending orders, and the animated competition among buyers. Hence an advance of 1⅛c. during the first fortnight was followed by a further improvement of ⅛c., and on April 28th low middling was quoted at 31⅛@32c., and middling at 32½@33c. This proved to be the highest point of the year, and to show the marked upward movement during the period from January 1st to May 1st, we continue our table of quotations, as follows:

1863.	Good Ordinary.	Low Middling.	Middling.
January 1	13¼@13½	14 @14¼	14½@14½
.. 3	13½@13¾	14½@14¾	15 @15¾
.. 8	13¾@13¾	14¼@14½	— @15
.. 10	13½@13¾	14½@14¾	15 @15½
.. 15	14½@15	15½@15¾	16 @16¼
.. 22	15¼@15½	16¼@16½	16¾@17
.. 24	15¾@16	16¾@17	17¼@17½
.. 28	16¼@16½	17¼@17½	17¾@18
.. 31	16½@17	17¾@18	18¼@18½
Febru'y 3	16½@16¾	17¾@17½	17¾@18
.. 7	16¾@17	17¾@18	18¼@18½
.. 11	18 @18½	19¼@19½	19¾@20
.. 18	21¾@22	22½@23	23½@23¾
.. 25	19 @19½	20½@—	21¼@—
March 2	19 @19½	20½@20¾	21¼@21½
.. 6	19¼@20	22 @22½	23 @23½
.. 10	— @21½	— @23½	— @24½
.. 13	22 @22¼	22½@23	23½@
.. 17	22¾@23	23½@23¾	24¼@24½
.. 20	23 @23¼	24 @—	24½@—
.. 27	23 @23¼	24½@24¾	25 @—
.. 31	25 @25¼	26 @26½	27 @27½
April 3	28½@29	29½@30	30½@31
.. 4	29½@30	30½@31½	32 @—
.. 9	28½@29	29½@30	30 @31
.. 14	30 @30½	31 @31½	32 @32½
.. 17	29 @—	30 @30½	31 @32
.. 24	29½@30	30½@31	31½@32
.. 27	30½@31	31½@32	32½@33
.. 28	30½@31	31½@32	32½@33
.. 29	30½@—	31½@—	32½@—
.. 30	29 @29½	30½@31½	32 @32½

The Liverpool market at the corresponding dates ruled as follows:

1868.	Middling Uplands.	Middling Orleans.
January 1	— @ 7¼d.	— @ 7¼d.
" 3	— @ 7¼	— @ 7¼
" 7	— @ 7¼	— @ 7¼
" 10	— @ 7¼	— @ 7¼
" 14	— @ 7¼	— @ 7¼
" 21	— @ 7¼	— @ 8
" 24	— @ 7¼	— @ 8¼
" 28	7¼ @ 7¼	8 @ 8¼
" 31	— @ 7¼	— @ 8¼
Febru'y 3	— @ 7¼	— @ 8
" 7	— @ 8	— @ 8¼
" 11	— @ 8¼	— @ 8¾
" 16	9¾ @ 9¾	9¾ @ 9¾
" 25	— @ 9¾	— @ 9¾
March 2	— @ 9	— @ 9¾
" 6	— @ 9¾	— @10
" 10	10⅛ @10¼	— @10⅛
" 13	— @10⅛	— @10⅜
" 17	— @10⅛	— @10⅜
" 20	— @10⅜	— @10⅜
" 27	— @10¼	— @10½
" 31	— @11⅛	— @11⅛
April 3	— @11⅞	— @12⅛
" 4	— @12⅛	— @12⅜
" 9	— @12⅜	— @12⅝
" 14	12⅛ @12⅝	12⅛ @12⅝
" 17	— @12⅛	— @12⅜
" 24	— @12⅝	— @12⅞
" 27	— @13	— @13⅛
" 28	— @12⅞	— @13⅛
" 29	— @12⅝	— @13
" 30	— @12⅝	— @12⅞

The entire movement for these four months is shown by the following:

	Receipts.	Sales.	Exports.
January	109,575	121,000	127,802
February	122,598	127,000	109,714
March	92,456	120,000	122,381
April	41,773	52,600	61,402
	366,304	420,600	421,379

The exports as above embraced 220 795 bales to Liverpool, 75 to Glasgow, 1935 to Cowes and a market, 93,173 to Havre, 27 to Bordeaux, 14,995 to Bremen, 2696 to Hamburg 592 to Stockholm, 7795 to St. Petersburg, 20 865 to Spain, 4564 to Italy, 5296 to Mexico, 22,953 to Boston, 21,964 to New York, 1087 to Providence, 2093 to Philadelphia, 147 to Baltimore and 7 to other ports.

This was the termination of the active business season, and with a limited demand, declining prices at Liverpool and New York, and other depressing influences, the unfavorable turn at the close of April continued until th middle, when the market rallied and has since ruled at higher figures, but with some fluctuations. In May, however, the tendency was steadily downward, prices giving way by the middle of the month 1⅛@2c. and to about the same extent subsequently, ow middling closing at 27½@28c., and middling at 29@30c., against 30½@31 and 32@32½c. at the end of April. The sales at the same time showed a falling off of about one half, and the receipts sunk from 41,77 bales in April to 9000.

As the stock on hand was now reduced to 21,095 bales, a large part of which was on shipboard not cleared, or in course of shipment, and the receipts were limited, factors made a strenuous effort to establish an advance in prices, which they were enabled to effect during the first week in une to the extent of 1c. ₱ lb, but under unfavorable accounts from Liverpool the improvement was not maintained and after some fluctuations the month closed at about the closing rates in May. The movement continued to diminish, the sales being less than half of those in May, while in July they were only about one-third of those in June. July also was marked by considerrble irregularity, prices advancing during the first ten days about 3c. ₱ lb, but subsequently receding and closing at about the opening rates, low middling ruling at 27@28c., against —@28c. on June 30, and middling at 28@29c. against —@29c.

The supplies during the past month have been so limited that the sales have been confined to the execution of trifling orders at irregular prices, more in favor of buyers during the first fortnight and not much stronger since although the Liverpool market has shown during the same period an advance of ⅛d. At the same time there has been a wide difference between the views of factors and buyers, the former asking 1@2c. above the ruling rates or the limits of pending orders. Under these circumstances quotations have been nominal, but are recorded in our tables below as the nearest indications possible to the state of the market. Several days passed without a transaction being reported. The first receipts of the new crop consisted of two bales on the 10th, one of which from False River, Point Coupee, was well ginned, of good color and staple, and classed strict low middling; and the other, from the plantation in Mississippi owned before the war by Mr. Jefferson Davis, and now worked by his former slaves for its present proprietor, Mr. Jos. Davis, was badly ginned, damp from being picked in rainy weather, and classed good ordinary. This was nine days earlier than the first regular receipts last year. The arrivals since have been quite as liberal as expected, amounting, up to the 31st, to 476 bales, against 19 to the corresponding date last year and 12 the year before. The first sale of new crop reported was a bale from Alabama at auction on the 14th, which classed middling and brought 34½c. This was followed by 2 bales Mississippi on the 15th, also middling, at 32c., 2 bales middling on the 18th at 30c., 2 on the 19th at the same, 7 strict low middling on the 20th at 29c.

The course of prices for the past four months is shown by the following tab'e:

	Good Ordinary.	Low Middl'ng.	Middling.
May 1	29 @29½c.	30 @31c.	31½@32c.
.. 5	29 @29½	30½@30¾	31½@32
.. 7	28½@2 ¾	29½@30	30½@31
.. 9	28 @28½	29 @29½	30½@31
.. 12	27½@27¾	2 ½@29	30¼@—
.. 15	28¼@—	29 @29¼	30 @30½
.. 19	28 @—	28½@29	29¾@30
.. 23	27 @27½	28 @28½	29 @29½
.. 26	26 @26½	27 @27½	28 @28¼
.. 30	26¾@26½	27¾@28	29 @30
June 3	26½@27	28¾@29	— @29½
.. 9	25½@—	26¾@27	27½@28
.. 12	25 @25½	26 @26½	27 @27½
.. 15	24½@25	25½@26	27 @27½
.. 19	25½@26	— @27½	— @28¼
.. 26	26½@—	27½@28	28¼@29
.. 30	26 @26½	— @28	— @29
July 3	27½@28	28½@29	30 @30½
.. 6	28½@29	29½@30	31 @31½
.. 8	30 @30½	31 @31½	32 @32½
.. 11	30 @—	31 @—	32 @—
.. 13	29½@—	30 @—	— @31
.. 17	29 @29½	— @30	— @31
.. 23	27½@28	28½@29	— @30
.. 27	27 @—	28 @28½	29 @—
.. 30	24 @24½	27 @28	— @29
Aug. 1	24 @25	— @26	— @28
.. 7	24 @—	— @26	— @28
.. 14	24 @—	26 @27	28 @—
.. 17	24 @25	— @27	— @28
.. 19	24 @25	— @27	— @28
.. 21	25 @26	27 @28	— @29
.. 25	25 @25½	27 @28	28½@29
.. 31	24½@25	27@27½	28 @28½

The following gives the Liverpool markets for the dates corresponding to the above:

	Middling Uplands.	Middling Orleans.
May 1	—@12½d.	—@12½d.
.. 5	—@12⅝	—@12⅝
.. 7	—@12⅝	—@12⅝
.. 9	—@12½	—@12½
.. 12	—@11⅝	—@12⅛
.. 15	—@12⅛	—@12⅜
.. 19	—@12	—@12¼
.. 23	—@11⅝	—@11⅝
.. 26	—@11½	—@11⅝
.. 30	—@11¼	—@11⅝
June 3	—@11½	—@11⅝
.. 9	—@11¼	—@11½
.. 12	—@10⅝	—@11
.. 15	—@10⅝	—@10⅝
.. 19	—@11⅜	—@11⅝
.. 26	—@11⅜	—@11⅝
.. 30	—@11⅜	—@11⅝
July 3	—@11¼	—@11⅜
.. 6	—@11¼	—@11⅜
.. 8	—@11¼	—@11⅝
.. 11	—@11⅝	—@ 1¼
.. 13	—@11⅝	—@11⅜
.. 17	—@11	—@11⅜
.. 23	—@10⅜	—@10⅜
.. 27	—@ 9⅜	—@10
.. 30	—@ 9⅜	—@10
Aug. 1	—@ 9⅜	—@10⅛
.. 7	—@ 9⅝	—@ 9⅜
.. 14	—@10	—@10⅛
.. 17	—@10⅜	—@11⅛
.. 19	—@10⅛	—@10⅝
.. 21	—@10⅛	—@11
.. 25	—@10⅛	—@11
.. 31	—@11	—11⅛

The following shows the movement for the past four months:

	Receipts.	Sales.	Exports.
May	8,800	26,500	47,195
June	3,294	12,000	19,632
July	3,020	4,500	10,346
August	1,517	900	2,006
Total	16,631	43,900	79,179

The exports, as above, embrace 40,310 bales to Liverpool, 16,969 to Havre, 313 to Bremen, 2386 to Spain, 3481 to Boston, 13,655 to New York, 1397 to Philadelphia, and 368 to Baltimore.

The following shows the entire movement of the year:

	Receipts.	Sales.	Exports.
Sept. 1 to Jan. 1	277,304	225,000	181,134
Jan. 1 to May 1	366,704	420,000	421,379
May 1 to Aug. 31	16,368	43,000	79,179
Excess in stock	8,019		
Total	668,395	688,000	681,692
Total 1866-7	700,490	654,220	667,816

The entire exports, as above, embrace 324,556 bales to Liverpool, against 403,521 last year; 75 to Glasgow, against none; 3059 to Cowes, etc., against none; 147,093 to Havre, against 139,298; 27 to Bordeaux, against 1554; 34,565 to Bremen, against 6735; none to Antwerp, against 50; 728 to Hamburg, against none; 592 to Stockholm, against none; 7795 to St Petersburg, against 15,452; 38,678 to Spain, against 24,803; 5677 to Italy, against 3212; 11 081 to Mexico, against 4335; 37,651 to Boston, against 84,264; 1067 to Providence against 9711; 84,779 to New York, against 145,046; 6294 to Philadelphia, against 8249; 417 to Baltimore, against 1106; and 7 to other ports, against none.

The following table gives the receipts at this port, and the total crop for the past ten years. The actual yield for 1866-7 was estimated at only 1,600,000 bales, but was swelled, by remnants of old crops, to the amount noted:

Year.	Receipts at New Orleans.	Total Crop.
1858-'59	1,774,298	3,851,401
1859-'60	2,255,448	4,675,870
1860-'61	1,849,312	3,699,936
1861-'62	38,889	No record.
1862-'63	22,678	"
1863-'64	131,044	"
1864-'65	271,015	"
18 5-'66	787,396	500,000
1866-'67	780,496	1,961,593
1867-'68	668 395	estim'd 2,350,000

The year closed with a stock on hand, not cleared, of 2276 bales, against 14,864 last year.

With regard to the growing crop, the accounts from the interior are so conflicting that it is even more hazardous than usual to make any estimate of the probable yield. Public opinion varies from 2,250,000 bales to 2,500,000 bales. Our estimate above is predicated on one-tenth less acreage and one-twelfth average increase on the yield to the acre.

SUGAR.—In commenting last year on the gradual recuperation of the Sugar culture, we noted the general expectation that the crop then in the field would probably double the yield of 1865-6, which would have made it about 77,000 hhds. This comparatively large estimate was predicated from the supposed area planted, and not from the weather which had been rather unpropitious—the spring being cold and wet and the cane not coming up well; but as the winter was mild and favorable, and the plant ripened early, it was supposed that it had recovered from its unpromising start. Hence the prevailing estimates ranged from 75,000 up to 90,000, and even 100,000 hhds. Even at the commencement of the grinding season it was still anticipated that the yield would reach 70,000 hhds., and as late as the end of November 50,000 hhds. were expected, the reduction in the estimates being caused by the poverty of the cane. As the result shows a falling off of about 25 per cent. from the inside estimate, it affords additional testimony of the precariousness of the crop, and its uncertainty even after the cane is gathered. Further evidence of this is afforded by the records for many years past. For example: In 1834 the crop was 100,000 hhds., and in the year following only 30,000. In 1855 it was 231,427 hhds., and in 1856, 73 876. In 1 61 it was 459,410 hhds, which is the largest on record and had it not been for a most unfavorable contingencies, it was supposed it would have run up to 500,000 hhds This in fact was regarded as the producing capacity of the sugar lands then in cultivation, and yet in the year before they yielded only 242,753 hhds. And yet sugar planting has always been a favorite branch of agriculture, and was in former times the chief basis of some of the largest fortunes in the State. This can readily be accounted for by the culture furnishing an ample remuneration when followed steadily for a series of years, the poverty of one season being more than compensated by the wealth of another. The sugar lands, moreover are mostly situated in districts proverbial for their salubrity with a genial and temperate climate, perpetually fanned by the healthful and refreshing breezes of the Gulf and well adapted to the culture of fruit and vegetables—not only the orange and fig, but nearly all cultivated in more northern latitudes. There is, perhaps, no branch of Southern industry that offers greater advantages to the Northern immigrant and capitalist than this. The more so, as capital is so much wanted to rebuild sugar houses, restore engines and machinery and renew cultivation in the fertile districts ravaged during the war. Should any considerable portion of our sugar lands be divided into small farms, it is manifest that their lessees or owners would not be warranted by the limited extent of their crop to have a grinding mill of their own, but would find it their best policy to sell their cane to the nearest sugar maker who possessed the necessary machinery. In this case sugar making or grinding would become, to some extent, a separate branch of industry from the cultivation of the cane, and moneyed or skilled immigrants could chose whichever they preferred. But whatever future prosperity may be anticipated from the labor and enterprise of immigrants, there can be no doubt of the steady recovery of our old planting interests from the paralyzing consequences of the war. A much larger area has been planted this year than last, and the prospects are highly favorable for a bountiful yield. Probably 100 000 hhds. will not be above the result, in which case the culture will not only be highly remunerative to all parties directly engaged in it, but materially increase the trade and commercial prosperity of our city.

The year commenced in September last with a supply confined to the small stocks in the hands of dealers, with the exception of a few crops held by speculators for higher prices. Hence the business reported in that month was only 611 hhds., while the receipts comprised 176, and the market ruled at 15¼@15½c for fair to fully fair, but with an upward tendency, which resulted before the close in an advance of ½c. The business was mostly of a retail character and the exports were confined to 836 hhds. The receipts in October were still more limited, embracing only 107 hhds., and, partly in consequence of the light supply, holders advanced their pretensions ½@1c. ₱ lb, fair to fully fair ruling during the greater part of the month at 16@16½c. The first receipts of the new crop were on the 28th—one day later than in 1866—and embraced 10 hhds. good yellow clarified, which were sold from the levee to a dealer at 17c. On the 29th there were further

receipts of 10 hhds. more, of a similar description and quality, which brought 16¾@16¾c. The sales this month summed up 126 hhds. and the exports 161. In November the new crop came forward quite freely, and by the middle of the month the business for the season may be regarded as having fairly opened, on the basis of 14½c. for fair, but in the face of more copious supplies and the expectation of liberal receipts these figures could not be maintained and towards the close fair ruled at 11¾@11½c and fully fair at 11¾@12½c., there being a good demand, however, at these figures and considerable competition among buyers. The sales this month comprised 2100 hhds., 1800 of which were during the last fortnight, the receipts 2300, and the exports 117, the business being aimed at exclusively confined to purchases for city consumption and the West. The receipts in December ran up to 14,122 hhds. which proved to be the heaviest of the year, but instead of giving way under the ample supply, prices being stimulated by an active demand for the West and the appearance of some buyers for the North, advanced ½@1c., fully fair ruling towards the close at 12¾@13c. The sales this month amounted to 13,000 hhds., and the exports to 1036. The market continued well supplied in January, but the demand being animated prices were generally sustained, fully fair opening at 12¾@13c., and, after some fluctuations—selling at one time as low as 12½@12¾—closing at 13@13¼. The sales showed no falling off, again amounting to 13,000 hhds., while the receipts comprised 13,798, and the exports only 343. These two months constituted the most active portion of the business season, which, in fact, may be regarded as closing in February, when the sales fell off to 5000 hhds., and the receipts to 47 7. With such a marked decrease in the supply, and a fair demand, prices now assumed a marked upward tendency, fully fair rising by the middle of the month to 14@14¼c, and closing at 14¾@15c. The exports this month were confined to 181 hhds. With still more limited supplies in March, when the receipts were only 1758 hhds., the demand subsided, and in order to effect sales from the levee, holders were compelled to make some concessions, but fully fair was still quoted as high as 14¾c. The sales this month were only 1000 hhds., and the exports 164. From this period out the business has been mostly of a retail and jobbing character, 400 hhds. changing hands in April, 200 in May, 100 in June and 150 in July and August; while prices have exhibited some irregularity, fair to fully fair ruling in April at 13@13¾c., in May and June at 14@14½c., in July at 13¾@14c. and during the past month at 13¾@14¾c.

The receipts during these four months embraced 66 hhds. in May, 74 in June and 94 since, and the exports 49 hhds. in May and June, 139 in July and 255 during the past month. The shipments by sea for the entire year comprise 2070 hhds., embracing 550 to New York, 224 to Philadelphia, 232 to Baltimore and 1059 to Gulf ports, 1095 of which were to Texas.

The general movement is shown by the following table, which gives a comparison with last year:

	Receipts—		Sales—	
	1866-7.	1867-8.	1866-7.	1867-8.
September	231	178	100	111
October	93	107	200	126
November	4,206	2,500	3,400	2,100
December	11,977	14,122	11,000	13,000
January	14,093	13,798	14 000	13,000
February	4 817	4,797	6,400	5,000
March	1,510	1,756	2,000	1,000
April	865	230	1,200	400
May	392	66	600	200
June	161	74	500	100
July	26	94	300	75
August	42	10	100	75
	38,523	37,739	39,700	35,187

The following gives the crops for the last twenty years:

	Hhds.
1847—8	240 000
1848—9	220,0 0
1849-50	247 ?23
1850—1	211,203
1851—2	2?6 541
1852—3	331 931
1853—4	449,374
1854—5	3?8 635
1855—6	231,497
1856—7	73,976
1857—8	279 97
1858—9	262,206
1859-60	231,840
1860—1	223,753
1861—2	40?,410
1862—3	67 231
1863—4	76 901
1864—5	9,800
1865—6	17,895
1866—7	39,000
1867—8	38,523

The crops up to 1861-2, inclusive, are from the annual statement of Mr. Champonier and may be regarded as accurate. Those since are partly the receipts at this port and partly from the New Orleans *Price Current*.

MOLASSES.—The receipts comprise 67 605 bbls. against 58,747 last year, showing an increase of 8318 bbls. Allowing, as formerly, 40 gallons to the bbl., this is almost precisely equal to the usual estimate of 70 gallons of Molasses to the hogshead of Sugar. The result, however, depends upon the quality of the cane, as when that is rich in the Sugar product, the returns will hardly reach 65 gallons ₱ hhd., which was the ratio in 1866-7, while, on the contrary, when the cane is poor, as was the case this year, the yield of Molasses will be 70 gallons or more. The first receipts of the new crop were on the 28th of October, when 10 half bbls. came to hand from the parish of Assumption, and, classing choice, sold from the levee at $1 05 ₱ gallon. Some further supplies of

the same grade and description changed hands on the 30th at $1 05 and a few barrels at 70@75c. Up to this period operations were mostly of a retail character and do not require further notice; but in November the market may be regarded as fairly op ning at 80@90c. for prime to choice during the early part of the month, and 85@92c. subsequently, the advance being caused by an active demand and moderate supplies, the sales comprising 8000 bbls., the receipts 10,417, and the exports 2588, mostly to New York. In December, as the supplies were copious, the movement was much more animated—in fact, it was the heaviest of the year—but prices were not maintained; prime to choice ruling during the early part of the month at 68@75c., and closing at 65@75c. The sales summed up 24,750 bbls., against receipts of 30,204, while exports embraced 15,228, including 9400 to New York, 3659 to Philadelphia and 1210 to Baltimore. With a marked falling off in the receipts, prime to choice advanced during the first week in January to 70@75c., and after some slight fluctuations exhibited a farther rise of 5c., ruling towards the close at 75@80c. The sales comprised 17,000 bbls., the receipts 17,247, and the exports 6786, including 4997 to New York. The receipts showing a still greater decrease in February, prices advanced to 85@90c., the market closing at the outside figures; but owing to scant supplies, the sales were confined to 5100 bbls. against receipts of 4934, while the exports were only 628. This terminated the business season, the sales dropping down to 2500 bbls. in March and 1000 in April, since which they have been mostly confined to retail and jobbing transactions. Prices at the same time have been comparatively steady, prime to choice ruling at 80@85c., and the inferior grades ranging from 45@70c.

The entire extent of the movement is shown by the following table:

	Receipts. bbls.	Sales. bbls.	Exports. bbls.
September	45	100	197
October	149	150	74
November	10,417	8,000	2 588
December	30,204	24,750	15 228
January	17,247	17,0 0	6,7 6
February	4 934	5,100	628
March	3,428	2,500	2 1
April	339	1,000	471
May	74	5 0	44
June	126	300	112
July	19	200	111
August	43	100	40
Total	67,065	59,700	26,511
Total last year	58,775	55,000	21,993

The entire exports, as above, embrace 1341 bbls. to Boston, 103 to Providence, 17 323 to New York, 5065 to Philadelphia 1373 to Baltimore and 1306 to Gulf ports, including 749 to Texas.

TOBACCO—The stock on hand at the commencement of the year in September, was only 3191 hhds., against 8707 at the corresponding date in 1866. As a considerable part of this amount was on shipboard not cleared, or in course of shipment, the actual supply was too limited to afford much scope to buyers, but there was, nevertheless, quite a lively demand, both for export and consumption, and the accounts from the growing crop being decidedly discouraging, factors advanced their pretensions, asking still higher figures towards the latter part of the month, when the crop news was still more unfavorable. This, however, checked the movement, purchasers being unwilling to go on at the figures asked, and the month's sales were confined to 750 hhds., at rates showing an irregular improvement of 1@2c. on the quotations of August 31. As the receipts varied but little from either the sales or the exports, there was not much variation in the supply at the commencement of October, but under the rather stimulating correspondence of Western planters, there was some speculative feeling in the market and 1200 hhds. changed hands during the first week, mostly to speculators, at full prices. This reduced the amount on sale to about 550 hhds. There was a material falling off, moreover, in the receipts, and with such a limited supply the month's business did not exceed 1500 hhds.

The crop was now all housed, and it was estimated at the West that in consequence of its having been diminished by a deficiency of plants, unpropitious weather in the spring, a protracted drouth subsequently, and much being cut too early from apprehension of frost, it would not exceed five-eighths of the yield in 1866. These accounts were well calculated to stiffen the market, which, in fact, assumed more buoyancy, but from the limited supply and high prices asked, the sales in November were confined to 300 hhds., against receipts of 340, the closing rates being as follows:

	Light.	Heavy.
Refused	5 @ 6½c.	5½@ 7 c.
Common Leaf	7 @ 8 c.	8 @ 9 c.
Medium	9 @11 c.	10 @13 c.
Good	12 @14 c.	14 @15 c.
Fine	15 @16 c.	16 @17 c.
Choice Selections	17 @20 c.	18 @23 c.

The first hogshead of the new crop came to hand on the 15th of this month. It was from Paducah, and classing fine, sold to a manufacturer at 25c ₱ lb. The exports for the three months ending on November 30 summed up 661 hhds., 519 of which were to Liverpool, 246 to Bremen and 2296 to New York. A few additional hhds. of the new crop were received in December and sold to manufacturers at very full prices—say from 25@35c.—factors being enabled to realize for such descriptions much higher figures than they could have otherwise obtained in consequence of the lively competition among city purchasers. The movement in December was on a very limited scale, operations being restricted by the scant supply, the sales embracing only 150 hhds against receipts of 135. The only change in quotations at the close was to advance the outside rate for light fine leaf, and put heavy fine at 18@20c., instead of 16@17c. The receipts now became more copious, but still the supply was too limited to afford much scope to buyers for export and the sales in January were confined to 175 hhds. at figures showing no quotable variation. Owing to cold and unfavorable weather for planting at the West the receipts again fell off in February, and the market continued without any animation, only 150 hhds. changing hands, without any quotable variation in prices. The limited extent of the movement for shipment is shown by the exports which embraced only 645 hhds. for the three months ending in February divided among buyers for Liverpool, Bremen, Spain and New York. There was rather a better feeling in March. Buyers

came forward with more spirit, but still the business was of limited extent, the sales comprising only 450 hhds, while the receipts amounted to 605. Nothing transpired to indicate any change in prices which, however, were rather stiffer in response to the high figures realized at the West. The movement was still more animated in April when the receipts ran up to 2066 hhds., but the demand being checked by factors asking higher prices, particularly for refused and common to medium leaf, the business did not exceed 800 hhds., the market ruling in the latter part of the month, as follows:

	Light.	Heavy.
Refused	6 @ 7 c.	7 @ 8 c.
Common Leaf	8 @ 9 c.	10 @11 c.
Medium	9½@10 c.	11 @12½c.
Good	12 @14 c.	14 @15 c.
Fine	15 @17 c.	18 @20 c.
Choice Selections	17 @20 c.	18 @22 c.
Fine Wrappers	22½@30 c.	— @— c.

The receipts in May were the heaviest of the year, amounting to 4579 hhds. and the increased supply stimulated the demand, particularly for the rich heavy description, suited to the German market. The sales consequently were on a much more liberal scale, embracing fully 3000 hhds., and although factors met the demand pretty freely, yet the closing quotations, as below, showed an irregular advance of ½@1c. ₱ lb.:

	Light.	Heavy.
Refused	7 @ 8 c.	8 @ 9 c.
Common Leaf	9 @10 c.	10 @12 c.
Medium	10½@11 c.	12 @13 c.
Good	14 @15 c.	15 @16 c.
Fine	15 @17 c.	18 @20 c.
Choice Selections	17 @20 c.	18 @22 c.
Fine Wrappers	22½@30 c.	— @— c.

In the early part of June factors were enabled to establish a further advance of 1c. in heavy refused, but the high prices asked checked the demand, and the month's sales were only 1100 hhds., against receipts of 3091, while the exports were the heaviest of the year, summing up 4101 hhds. The receipts now fell off rapidly, amounting in July to 1135 hhds, and the stock was not only limited but badly assorted. One party, however, taking nearly 1000 hhds., the month's sales summed up 1500 hhds., at prices requiring no change in quotations. The past month has exhibited but few variations. Factors have adhered firmly to their previous pretensions, and a moderate business has been done at figures requiring no change in quotations, the sales summing up 400 hhds., and the receipts only 427.

The following table shows the monthly movement for the year:

	Receipts.	Exports.	Sales.
September, hhds.	786	911	750
October	246	1,637	1,500
November	240	513	300
December	135	257	150
January	1,410	84	175
February	611	304	150
March	695	456	450
April	2,066	1,392	800
May	4,529	1,300	2,000
June	3,091	4 101	1,100
July	1 135	1,245	1,500
August	427	2,[illegible]	425
Total	15,281	15,052	9,300

The exports as above embrace 3674 hhds. to Liverpool, 1671 to London, 213 to Havre, 4203 to Bremen, 133 to Spain, 40 to Italy, 21 to the West Indies, — to New York and 14 to other ports.

The market closed with a stock on hand of 2183 hhds., and ruling at the following quotations:

	Light.	Heavy.
Refused	7 @ 9c.	9@10c.
Common Leaf	9 @10c.	10@ 2c.
Medium	10½@12c.	12@13c.
Good	14 @15c.	15@16c.
Fine	15 @17c.	18@22c.
Choice Selections	18 @20c.	19@22c.
Fine Wrappers	22½@30c.	—@—c.

WESTERN PRODUCE—The details below show a material falling off in our receipts of Flour, Corn, Oats, Pork, Lard, Bacon, Green Meat and Whisky. There has also been a decrease in Bran, Potatoes, Onions, Apples, Eggs, Butter, Cheese, Candles, Hemp, and several minor articles. On the other hand there has been some increase in Tobacco, Corn Meal, Box Pork, Bagging and Dried Fruit. So far as regards the extent of the movement this exhibit is by no means favorable, but the[illegible] are other features of it which are eminently encouraging. The renewed and earnest effort to recover our lost trade in some branches give assurance of eventual success, and that with cheap river freights, low transit charges, prompt attention from our commission merchants, and ample means for shipment by steam or sale either to trans-Atlantic ports or to the North, we may reasonably anticipate a large increase for the future.

FLOUR—The year commenced with a stock of 35,000 bbls., against 20 000 on September 1, 1866, and 4,000 the year before. The market ruled at $8 50@8 75 for superfine and $9@9 75 for single and double extra, which is 25c. in the former and 37½@50c. in the latter below the opening rates in 1866. The demand was limited—confined almost exclusively to jobbing transactions and retail business—and the supply being comparatively large, prices gave way early in the month 50c. ₱ bbl. The market then reacted, and, the receipts falling off, continued to exhibit an upward tendency until it closed at a net advance of $1 25@1 50. The month's sales comprised 41,000 bbls., against receipts of 48,791 and exports of 13,549. In October, the supply of superfine being nearly exhausted, that grade advanced to $11@11 25, while extra ruled at $11 50, but on heavy arrivals

later in the month, suffered an unfavorable reaction, under which superfine declined to $9 50@9 75 and extra to $10@10 50. The receipts ran up in this month to 85,797 bbls., while the sales were only 44,000, a large portion of the former being for transhipment to New York, the exports amounting to 24,450 bbls. Large orders were pending at this time for Liverpool and Havre, but our stock on sale offered no scope for their execution, and they were transmitted to other markets. In November, with a marked falling off in the local demand, sales could be effected only at lower rates; and by the 15th, superfine declined to $9 50 and extras to $9 75@10 50, showing a reduction of about $1 ₱ bbl., which, under the depressing influence of large sales of damaged at auction, was followed by a further falling off of 50c.@$1. The month's sales showed a moderate degree of activity, summing up 47,000 bbls., while the receipts were heavy, amounting to 108,253 bbls. and the exports to 34,,c6. The liberal supply now stimulated the shipping demand, under which superfine recovered, and ruled at $9 50, while extras commanded $9 [illegible]@10; but under the depression of a tight money market and holders constantly making further concessions for cash, prices ruled towards the close at a reduction of 25c. from these figures.

The month's sales were only 37,000 bbls., while the receipts comprised 76,141, and the exports 40,087. There was an improved local demand in January, but very little for shipment, and at the middle of the month prices were easier, superfine ruling at $9@9 12½, and extras at $9 25@9 50; but the movement became more spirited subsequently, and towards the close the former advanced to $10 25, and the latter to $10 75@11. The sales this month summed up 45,000 bbls., the receipts 41,142, and the exports 16,756. The stock on February 1st amounted to 52,000 bbls., an undue proportion of which consisted of treble and choice extras, which we have not noticed in this report, but which ruled at about the usual advance on double extra. The supply of superfine and single to double extra being consequently moderate, they rose to $10 75 for the former, and $11 50 for the latter; but later in the month, under the expectation of heavy arrivals, the former gave way $1, and the latter $1 50, which was partly recovered towards the close, when superfine ruled at $10 50, and extras at $11. The month's sales comprised 38,000 bbls., the receipts 43,812, and the exports 12,560. With heavy arrivals in March, prices gave way during the first week 50c. ₱ bbl., but under a fair demand—partly for shipment—the market soon rallied, and closed at $9 75@10 for superfine, and $10 50@10 75 for double extra. At the same time the sales were to a liberal extent, but not in proportion to the receipts, the former comprising 48,000 bbls., and the latter 100,905, while the exports were only 14,497. Notwithstanding this marked difference between the receipts and sales, the amount offering at the beginning of April was hardly equal to the demand, and prices advanced 25@50c., but the subsequent arrivals being unusually heavy, this improvement was not maintained, and by the 15th superfine fell to $9@9 25, and extra to $10@10 50, which showed a falling off of $1@1 25 ₱ bbl. from the highest point. The movement in this month was the heaviest of the year, the sales summing up 55,000 bbls., the receipts 124,413, and the exports 20,872. A considerable part of the arrivals was by barges.

After some few fluctuations the market yielded to the abundant supplies and closed in May at $8 62½@8 75 for superfine, $9@9 50 for double extra. The demand was less animated and the sales did not exceed 40,000 bbls., while the receipts amounted to 74,524 and the exports to 35,584. The decline in May was followed by a further reduction of 50c. during the first week in June, but this was subsequently recovered, and prices continued firm until towards the close, when superfine sank to $7 75@8 and extra to $8 50@9—the month's sales comprising 39,000 bbls., the receipts 58,381 and the exports 28,426. The supply on sale at the commencement of July was only moderate, but under the depressing influence of discouraging accounts from the West prices further declined 50@75c. ₱ bbl., superfine sinking at one time to $6 75, which was the lowest point in the year, but the market then rallied and closed at $7 75@7 87½ for superfine and $8 75@9 for double extra. The past month opened with a decidedly better feeling, excited by the limited supply on sale, and superfine and double extra respectively advanced during the first week to $8 50@8 75 and $9@9 25, but the market has been extremely dull since and closed at $7@7 75 for superfine and $8@8 25 for double extra. The month's sales have been 34,000 bbls., the receipts 83,001 and the exports 21,780.

The following table shows the extent of the year's movements:

	Receipts.	Exports.	Sales.
September	48,791	13,519	41,000
October	85,797	24,450	44,000
November	108,253	37,691	47,000
December	76,141	40,273	37,000
January	41,142	16,756	43,000
February	43,812	12,560	38,000
March	100,905	14,497	48,000
April	124,413	20,872	55,000
May	74,524	35,584	41,000
June	58,381	28,426	38,000
July	42,838	13,356	33,000
August	83,001	21,780	34,000
Total	888,068	285,704	285,704
Total 1866-7	992,125	282,435	818,200

The year's exports as above, embraced 324 to Great Britain, against 1504 last year; 3000 to France, against none; 64,362 to Cuba, against 44; 23,857 to other foreign ports, mostly Mexican, against 25,557; 103 268 to Northern Atlantic ports, against 135,313, and 88,717 to other coastwise ports, mostly Gulf, against 120,017.

WHEAT.—The trifling resumption of the trade in this article has been confined to the receipt of 87,805 bushels, part in sacks and part in bulk, and the transhipment of 82,188 bushels to Great Britain, 670 to Boston and 31,056 to New York.

CORN.—The abundant supplies of this cereal in 1866-67 were nearly all required for the supply of the plantation demand, but from the much wider breadth of land planted at the South in grain it was supposed our home product would suffice for plantation consumption and that little or none would be required from the West. The result shows, however, that although the demand for Western Corn has been much diminished, yet the South has still been one of its best customers. The receipts comprise 1,610,643 sacks, against 2,709,925 last year, and the exports 779 804, against 926,709. Deducting the exports from the receipts and allowing the stock on hand to offset last year's, there remains 850 17 sacks, equal 2,076 945 bushels, nearly the whole of which has been taken to meet the plantation demand. Prices have exhibited about the usual fluctuations, but for most of the time have ruled too high for foreign export. For the first time in many years

there have been considerable receipts in bulk by barges, from which their cargoes were transferred by elevators to sea-going vessels. It is anticipated that there will be a large increase in this mode of transportation, and ample provision has been made to afford it every requisite facility. At the commencement of the year in September, mixed and white ruled at $1 20@1 25, but the market being extremely dull, these figures could not be maintained, and by the 15th mixed was quoted at $1 17 and white at $1 20. The demand then improved, and holders were enabled to establish an advance from the lowest point of 20c., mixed and white closing at $1 35@1 40. The sales comprised 40,000 sacks. In October the movement was much less animated, only 18,000 sacks changing hands, while, after some fluctuations, mixed and white closed at $1 60@1 75, showing a further improvement of about 15c. The demand continued slack in November, and the receipts being liberal, prices rapidly gave way, until at the close mixed and white ruled at $1 05@1 10, showing an average decline of 60c. The sales were still moderate, not exceeding 36,000 sacks. There was no material change in December, when the sales embraced 51,000 sacks at $1 05@1 15, mixed and white closing at $1 05@1 10, prime yellow commanding at the highest point $1 15. In January under a fair demand for Great Britain and the Northern ports and liberal receipts, the market became quite animated and 201,000 sacks changed hands at from 93c.@$1, closing at 97c.@$1. At the end of this month, notwithstanding the heavy receipts, the stock was estimated at only 25,000 sacks, mostly in warehouse, but the receipts were ample for the demand, and prices exhibited a general downward tendency, mixed and white receding, by the middle of February, to 95@98c., and closing on the 29th at 93@94c. The sales this month were on a liberal scale, summing up 173,000 sacks, against receipts of 293,203. The demand for shipment continued quite lively in March and prices gradually improved, mixed and white closing at $1@1 02½, while the sales amounted to 205,000 sacks and the receipts to 270,737. April passed without any material change in prices, mixed and white closing at $1@1 02, while the movement continued animated, the sales comprising 150,000 sacks and the receipts 250 590, but in May, with less copious supplies, the market assumed an upward tendency and 130 000 sacks changed hands mostly at $1 07½@1 10, the receipts embracing 142,414. The current rates being materially above the limits of foreign orders, June opened with a quiet market and drooping prices, which continued to give way throughout the month, while at the close mixed and white ruled at the reduced figures of $1@1 02½. The sales embraced 107,000 sacks and the receipts 124,362, showing a decided falling off in the movement. The receipts now decreased rapidly, amounting to only 4,737 sacks in July, and the sales fell off, but not in the same degree, the business comprising 80,000 sacks, at irregular prices, mixed selling at 90c @$1 and white at $1@1 02½, while yellow, which had previously ruled higher than white, sold at 95c. The business of the past month has been of moderate extent, at prices varying from 90@95c. for mixed and $1@1 05 for white and yellow. There have been some foreign orders pending at 90c. which could not be executed. The month's sales comprised 25,000 sacks and the receipts 41,025.

The following table gives the monthly movement for the year:

	Receipts.	Exports.	Sales.
September	43,302	15,714	40,000
October	7,313	2,928	18,000
November	54,1 6	5,974	36,000
December	66,741	12,787	51,000
January	310,738	138,542	201,000
February	294,203	181,324	173,000
March	270,737	202,441	205,000
April	250,590	112,540	150,000
May	142,414	46,264	130,000
June	124,362	28,144	107,000
July	54,737	19,992	80,000
August	41,025	12,906	25,000
Total	1,610,642	779,864	1,216,000
Total last year	2,709,625	526,708	2,253,600

The exports, as above, include 191,408 sacks to Great Britain, against none last year; 6470 to France, against none; 46,760 to Cuba, against 233; 3787 to other foreign ports, mostly Mexican, against 4974; 415,978 to Northern Atlantic ports, against 40,578; and 374,091 to other United States ports, mostly Gulf, against 479,429.

OATS.—The receipts of Oats comprise 374,091 sacks, against 576,567 last year, showing a large falling off; but still the supply appears to have been sufficient for the demand, prices never rising as high as in 1865-6. The reported sales comprise 25,500 sacks in September at from 60 up to 80c.; 34,000 sacks in October at 70 up to 85c.; 23,000 sacks in November at 75@82½c.; 17,000 sacks in December at 80@85c.; 22,000 sacks in January at 70 up to 85c.; 20,000 sacks in February at 80@83c.; 23,000 sacks in March at 78 @80c.; 30 sacks in April at 75@80c.; 27,000 sacks in May at 75 up to 90c., which was the highest point of the year; 18,000 sacks in June at 70@80c.; 15,000 sacks in July at 70@80c.; and 16 500 sacks during the past month at 60@—c. The year's receipts embrace 21,499 sacks in September, 48,775 in October, 25,817 in November, 32,41 in December, 4 ,310 in January, 17,464 in February, 3365 in March, 56,818 in April, 16,434 in May, 31,972 in June, 15,151 in July, and 28,094 in August. About seven-eighths of the supplies have been taken for home consumption.

PORK.—The receipts of Pork show some falling off from last year, comprising 142,958 bbls., against 150,519, but an excess over 1865-6, when they were only 75,847. Before the war—at least for the four years ending in 186—they averaged 443,911 at which period considerable quantities were forwarded to the North by the river route. Nearly the whole of our receipts for the past year have been required for the local trade and to meet the plantation demand, the exports comprising only 10,170 bbls., mostly for neighboring Gulf ports and none for the North. Prices have ranged at from $21@23 for mess in January to $28 50@31 in July. The market opened in September at $26 25 for mess and with an active demand for consumption and the execution of a few Government orders, prices subsequently advanced $1 25, but towards the close lost about 75c. of the previous improvement. This downward tendency continued in October, resulting in a further decline of $2 75, mess closing at $24. In November holders were compelled to make still further concessions, mess falling to $21 50@22, but the market then rallied and closed at $23 50@24 75. In the early part of December mess further rose to $24 50@25, but subsequently receded to $22, which was followed by a further decline in January, when under heavy

receipts—the heaviest of the year—and a moderate demand, mess sold as low as $21. In the latter part of the month, however, prices gradually stiffened and the market closed at $22. The movement in February showed more animation, 7500 bbls. changing hands at irregular prices, mess ranging from $24@25 50 during the three first weeks, and then advancing to $26 50@27, which were the closing rates. This improvement, however, was not maintained in March, when, under liberal receipts, mess declined to $24@24 50, closing at $26 50. The business in April proved to be the heaviest of the year, the sales summing up 9000 bbls., but prices showed considerable irregularity, mess rising during the first week to $28, subsequently to $29, receding during the third week to $27 25 and finally recovering and closing at $28. May opened with a sale of 2000 bbls. to a speculator at $29 50, after which small sales were made at $30, but later in the month the market receded and closed at $29 25@29 50.

A further decline of 50c. during the first week in June was followed by a reaction, under which the previous falling off was recovered, and the sales for the rest of the month were at $29 25@29 50, the former being the ruling rate. There was then no material change until the middle of July, when the accounts received from the West caused an advance of $1 25@1 50, mess ruling at $30 50@31, which proved to be the highest point of the year. The market was rather less buoyant towards the close, and the past month commenced with a limited retail and jobbing business at $30@30 50, since which it has continued quiet but firm, round lots being quoted at $30 50 and the retail rate $31. The sales reported monthly embraced 3600 bbls. in September, 4300 in October, 3200 in November, 4200 in December, 7300 in January, 7500 in February, 7400 in March, 8900 in April, 6500 in May, 4500 in June, 4700 in July and 1500 during the past month, but constitute only a portion of the general movement, many transactions occurring which are not reported. The receipts embraced 13,773 bbls. in September, 10,550 in October, 8226 in November, 8752 in December, 12,254 in January, 9106 in February, 26 203 in March, 29 919 in April, 2.86 in May, 9955 in June, 7769 in July and 7433 during the past month, making a total of 142,985 bbls., against 159 519 last year.

BACON—The receipts of Bacon also show a material decrease compared with last year, comprising 24,361 casks, against 35,682; 15,168 bbls. and tierces, against 25, 36; and 4310 boxes, against 5231. Prices have exhibited about the usual irregularity, the market ranging, in September, at from 13½@16c. for shoulders, and 17⅞@20c for sides; in October at from 14⅜@15½c. for shoulders, and 18⅜@19½c. for sides; in November at from 12@12½c. for shoulders, and 13½@14½c. for sides; in December at from 10½@11c. for shoulders, and 13½@15⅜c for sides; in January at from 9@10½c. for shoulders, and 13@13½c. for sides; in February at from 10¼@ 3¼c. for shoulders, and 13¾@17c. for sides; in March at from 10@12¼c. for shoulders, and 14¼c. for sides; in April at from 11¾@14c. for shoulders, and 15½@,9c. for sides; in May at from 14@14½c. for shoulders, and 17@17¼c. for sides; in June at from 13½@13¾c. for shoulders, and 17@17¼c. for sides; in July at from 13¾@13¾c. for shoulders, and 16¾@17½c. for sides; and during the past month at from 13½@14¾c, for shoulders, and 15½@17¾c. for sides. Hams have exhibited a wide range, according to quality and brand, and the course of the market for shoulders and sides—say, from 11½@27½c.

GREEN MEAT—The receipts of this article also show a decided falling off from last year, embracing 708,910 lb, in bulk, against 948,350. Shoulders sold at the beginning of the season at 7½@9½c., and sides at 9@9½c.; but since February the former have ruled at 10½@14¼c., and the latter at 11½@1 c.

LARD—In common with other articles of provisions, the receipts of Lard show a decided decrease, embracing 29,367 bbls. and tierces, against 32,377 last year; and 43,024 kegs, against 48,758. All packages reduced to kegs, the exports embrace 93,787 kegs, including 67,004 to Cuba (against 48,742 last year) 5528 to New York, 14,190 to other United States ports, mostly Gulf, and 6908 to other ports, showing that 70 per cent. of our shipments have been to Havana. Prices have exhibited about the usual variations, prime ruling in September at 12¾@14⅞c. for tierces and 14½@16c. for kegs, closing at outside figures; in October at 14¼@15c. for tierces and 15½@16c. for kegs; in November at 12½@14c. for tierces and 13@15c. for kegs; in December at 12@14c. for tierces and 13¾@14½c. for kegs; in January at 12@14c. for tierces and 13½@15c. for kegs; in February at 13¼@17c. for tierces and 15¼@17c. for kegs; in March at 15½@17c. for tierces and 16@17½c for kegs; in April at 17½@19½c. for tierces and 17½@20c. for kegs; in May at 19@21c. for tierces and 20@22c. for kegs, in June at 18½@19¾c. for tierces and 19¼@20½c. for kegs; in July at 17½@19c. for tierces and 19@20½c. for kegs, and during the past month at 18¼@19¼ for tierces and 20¼@21½c. for kegs.

BEEF—The receipts of Beef embrace 11,876 bbls., against 8396 last year. The exports comprise 8116 bbls., including 7964 to New York. The sales have been mostly confined to retail transactions.

BUTTER AND CHEESE—A large part of the demand for consumption has been supplied by the products of the Northern dairies, and the receipts of both Butter and Cheese show a material decrease compared with last year. The former embrace 16,980 packages, against 24,092 last year; and the latter 3?,994 boxes, against 65,067. The business throughout the year has been of a jobbing and retail character. Prices have shown a wide range, according to quality. The lowest point for Butter was in last September, when the poorer grades sold at from 10@25c and the better from 30@37, and the highest in March, when the former ruled at 25@45c, and the latter at 50@60c. The lowest point for the inferior qualities of Cheese was in April, when they ranged from 5@16c., and for the better qualities in June, when they were quoted at 10@14; and the highest for the former was in May, when they ruled at 12@16c, and for the latter in November, when they sold at from 16@20c.

WHISKY—The demand having been mostly met by our home distilleries, and the excise having materially diminished consumption, our receipts from the West exhibit a remarkable decrease, amounting to only 10,780 bbls., against 37,580 last year. In 1859-60 they amounted to 185,042. Quotations have been to a great extent nominal throughout the year, but have ranged from 25@35c. for Louisiana in bond and 30@40 for Western. The sales free have been mostly at less than the excise. The reduct on of this extravagant tax from 82 to 60c. per gallon, it is supposed, will stimulate consumption, prevent evasions of the law, and perhaps increase the revenue. A number of distilleries have been closed by the Collector for violation of the law. Others have apparently complied with it and been undisturbed. The trade has been involved in such mystery that no statistics have been available which are at all reliable. The receipts by the river embraced 1396 bbls. in September, 1181 in October, 1443 in November, 1654 in December, 1411 in January, 509 in February, 581 in March, 744 in April, 836 in May, 383 in June, 98 in July and 554 in August.

BALE ROPE—This article has been s nearly superseded by the use of Iron Cotton Ties for baling cotton, that the business in it in this market has been confined to limited retail transactions, and the supply of a few orders for shipment. Prices have ranged from 8@10½c. The

receipts have been confined to 3310 coils against 25,180 last year and 127,221 in 1858-9, and the exports to 3,27. The stock is now about 2000 coils

IRON COTTON TIES—The market opened in September at 8c. ₱ ℔ for round lots, and 9c. at retail which continued to be the ruling rates until the suspension of the demand at the close of the business season, when round lots could have been bought at 6½c., and the limited retail demand was supplied at 7@7½. Since the resumption of the movement with the baling of the new crop round lots have ruled at 7c. and retail at 7½. The year's business has been on a liberal scale. The stock in January was 90,000 bundles, averaging 64 ℔; July 1, 132,000; August 1, 150,000, and to-day 85,000. Our supplies are principally from England, but there have been some receipts from New Albany, Indiana and Chattanooga, Tennessee. The Iron Ties weigh about 11 ℔ to the bale of cotton; Rope Ties about 9 ℔. The Iron is preferred from safety, convenience and economy.

KENTUCKY BAGGING—The increased use of India Bagging for baling cotton has curtailed the receipts of Kentucky to 7999 pieces, against 34,706 in 1858-9, but they, nevertheless, show an increase over last year, when they were only 6847. The trade has been mostly confined to retail transactions. Stock about 1400 pieces.

INDIA BAGGING—Quite a large business has been done in this article at the wide range of 18@28c., the market ruling in September at 27@27½c., in October at 2a@27½c., in November at 22@25c., in December at 18@24c., in January at 18@20c., in February at 19@21c., in March at 20@22c., in April at 22@24c., in May at 22@25c., in June at 22@24½c., in July at 23½@26c., and during the past month at 26@28c. The supply has been ample for the demand, the stock amounting to 6000 bales on November 30 5000 on December 31, 5000 on January 31, 4700 on March 31, 5000 on April 30, 5000 on May 31, 52 00 on June 30, 6000 on July 31 and — yesterday.

COFFEE—We are gratified at being able to notice further progress towards the resumption of our former trade in this article, the imports for the trade year ending on June 30 comprising 113,519 bags, against 81,491 last year, showing an increase of 2,028 bags, from which there remained on hand a stock of 11,132 bags. The amount taken for consumption was set down at 102,387 bags, against 81,491 last year, showing an increase of 20,896 bags. The heaviest imports were in the four months ending on February 29, and the most active business from January 1 to May 1. the sales during that period embracing 12,124 bags in January, 26,648 in February, 15,11? in March, and 13,911 in April. Sales from first hands have been for gold and jobbing transactions for currency. Gold prices, duty paid, have ranged from 14@15½c. for common, 15½@17c. for fair to good fair, and 16¼@18c. for prime to choice. The lowest point was in February, when fair to good fair was quoted at 15½@16c. and prime to choice at 16¼@16¾c.; and the highest in April, when the former commanded 16½@16¾c. and the latter 17¼@18c.

MONEY MARKET—The Money market proper has exhibited for the greater part of the past year the anomalous condition of an ample supply of capital, and yet occasional spasms and general stringency, in consequence of capitalists being unwilling to invest their funds in the paper offered. At no previous time, perhaps, have lenders been more rigid in their scrutiny of names, or their valuation of securities, and strong houses have at times been in imminent danger of protest, from the collaterals they presented to secure temporary loans not being approved or accepted. With greater freedom in the movement of money, and a more liberal spirit on the part of lenders, the market might have exhibited increased activity, to the advantage of all parties. This state of affairs arises from the prevalent distrust of the basis of credit, and a vague doubt with regard to future values, whether of produce, real estate, stocks, or other securities. Our finances have also been seriously disturbed by the large amount of capital locked up in City Treasury notes, which previously constituted an important part of the volume of our circulating medium. As long as these issues were used as currency, and prices of commodities were graduated by their relation to National Bank or Legal tender notes, they filled a certain space in the general circulation: but when they declined to a point at which they were no longer current, a portion of them passed into the hands of speculators, who bought them to lay by for a future advance, and a portion was locked up in small sums by individuals who were unwilling to sacrifice them or convert them into National currency at the ruling rates. The aggregate of these sums, reaching four millions in amount, having to be replaced by National currency, caused a steady pressure in most branches of the community.

The stringency, however, arising from the causes we have referred to, was inconsiderable compared with that growing out of the deficiency in the proceeds of cotton sales to meet advances previously made on the crop This was the chief evil in our financial movement, and under its disastrous influence many houses were compelled to suspend payment who had been previously regarded as entitled to the fullest confidence.

The effect of this contraction in the general circulation has been felt in every branch of trade; depreciated prices repressed the spirit of speculation and contributed to the general decline in stocks. At the same time capitalists who have had funds lying idle in bank have been deterred from loaning them, excepting on strictly first-class signatures, secured by solid collaterals, leaving the mass of the business community without relief. There has also been a great reluctance to invest capital in mortgage, unless on productive city property in business localities, and then only for short terms, all long engagements being unacceptable from the fear that Federal legislation may, by expansion of the currency, make a virtual change in the measure of value.

With these serious restrictions on the free movement of capital, the rates of discount outside of the banks have ruled high throughout the year, A1 paper being quoted at 10 ₱ cent. per annum to 1 ₱ cent. per month, but generally ruling at the latter rate, while good but secondgrade, could not be made at better than 1½@1½ ₱ cent per month. Mortgage notes have been pretty uniformly quoted at 10@12 ₱ cent. per annum for A1 and 13@15 for second class. At times, indeed, under the exigencies of a temporary pressure, some negotiations were made as low as 1½, and at one period, although it was believed that a large amount of capital was lying idle in the banks, it was impracticable to negotiate notes of ordinary strength at any reportable rate of interest.

Gold has fluctuated, under the influence of the New York market, which in its turn has been controlled by the demand for remittance, the price of United States bonds in the London Stock Exchange, the supply of cotton bills and political events. Its highest rate was on the 6th of the past month, when it touched 150½ ₱ dollar; the lowest on the 12th December, when it ruled, at 122. The following table gives its principal variations throughout the year:

1857—September	6	143 @143½
..	13	144½ @144⅝
March	6	142 @—
..	13	140½@140¾
..	20	139½@139⅝
..	27	140 @—

April	3	139¾	@139
..	10	—	@139½
..	17	139¼	@139½
..	24	—	@140
May	1	140¼	@140½
..	8	140⅝	@140¾
..	15	140⅝	@141
..	22	140½	@140¾
..	29	139⅝	@139⅞
June	5	139½	@1. 93⅛
..	12	139⅜	@140
..	19	139¾	@140
..	26	139⅛	@139¾
July	3	139⅝	@139¾
..	10	140¼	@140⅜
..	17	142¼	@142½
..	24	142¾	@142⅞
..	30	144⅞	@145⅛
August	3	145⅛	@145¾
..	6	149½	@150½
..	7	148¾	@ 49⅛
..	20	143½	@144
..	27	——	@144¼
October	4	——	@144
..	11	144	@144½
..	18	—	@144¾
..	25	—	@142
November	1	140	@140½
..	8	—	@139¼
..	15	140¾	@141
..	22	——	@139¾
..	29	139⅛	@138¾
December	6	——	@136¾
..	13	132	@132¼
..	20	132¾	@133
..	27	132⅛	@133
1868—January	3	132¾	@133
..	10	136¼	@136½
..	17	137¼	@138
..	24	——	@138¾
..	31	139⅛	@1 93⅛
February	7	140⅝	@140¾
..	14	——	@139½
..	21	——	@140¾
..	28	——	@142
..	10	146¾	@147
..	16	——	@146
..	21	143⅛	@144
..	25	144	@—
..	29	144	@144¼

The unfavorable reaction at New York, under which the rates have given way since the 6th instant, was attributed to the large amount of German bills drawn against sales of 5-20s abroad, having been pressed on that market, and supplied the remittance demand.

The Stock market has shown various fluctuations, but on the whole a downward tendency, which has affected nearly all on the list. The table below gives the average of Saturday's quotations, compared with those of same date last year:

	Aug. 31, 1868.	Aug. 31, 1867.
Bank of Louisiana	$ 1 00	$ 6 75
Louisiana State Bank	31 25	39 50
Mechanics' and Traders' Bank	46 00	56 00
Canal Bank	45 00	57 00
Union Bank	32 00	59 00
Citizens' Bank	140 00	183 00
Bank of New Orleans	33 50	34 50
Southern Bank	88 00	94 00
Merchants' Bank	17 00	31 50
Crescent City Bank	3 00	30 50
Bank of America	14 00	140 00
City National Bank	.....	97 00
Louisiana National Bank	90 50	100 00
Union Insurance Company	65 00	71 00
Hope Insurance Company	45 00	50 00
Germania Insurance Company	30 00	39 00
Louisiana State Sixes	62	90
Consolidated City Bonds	79	88
Railroad City Bonds	66	78
Levee State Bonds	55	..
Jackson Railroad Mortgage Bonds	80	93
Opelousas	51	58
Pontchartrain Railroad	91 00	91 00
Carrollton Railroad	93 00	54 00
Opelousas Railroad	2 00	5 00
Jackson Railroad	6 25	6 75
New Orleans City Railroad	166 00	219 00

	Aug. 31.		Aug. 31.
St. Charles Street Rail'road.....	38 00		88 00
Crescent City Railroad.....	100 00		134 00
Orleans Railroad.....	98 00		.....
Gas Light Company.....	147 50		154 00
Water Works.....	50 00		59 00
Levee Steam Cotton Press.....	60 00		94 00

The following dividends have been declared during the year, viz: Mechanics' and Traders' Bank, 5 ℘ cent. January 1 and 4 ℘ cent. July 1; Canal Bank, 5 ℘ cent. December 1; Union Bank, 3 ℘ cent. August 10; Citizens' Bank, 5 ℘ cent. February 1 and 5 ℘ cent. August 1; Southern Bank, 5 ℘ cent. July 1; Bank of America, 10 ℘ cent. January 1 and 8 ℘ cent. July 1; Crescent City Bank, 3 ℘ cent. July 1; New Orleans City Railroad, $5 ℘ share October 1, $4 January 1 and $4 July 1; Pontchartrain Railroad, $4 January 1 and $4 July 1; Carrollton Railroad, 4 ℘ cent. July 1; Gas Light Company, 5 ℘ cent. January 1 and 5 ℘ cent. July 1; and Levee Steam Cotton Press, 3 ℘ cent. January 1 and 2 ℘ cent. July 1. The Bank of Orleans suspended active business in December but resumed in the ensuing month. Its stock has ruled considerably higher since the resumption than its ruling rates before the suspension. None of our banking institutions who have circulation out have failed to redeem it on presentation, in national currency, with the exception of the Bank of Louisiana, which is in liquidation.

FREIGHTS—The principal basis of our Freight market during the past year consisted of 562,000 bales of Cotton, 10,000 hhds. of Tobacco and 200,000 sacks of Corn to trans-Atlantic ports; and 100,000 bales of Cotton, 4800 hhds. of Tobacco, 22,500 bbls. of Molasses, 100,000 bbls. of Flour and 416,000 sacks of Corn to Northern United States ports. These figures show a decrease of 37,000 bales of Cotton, and an increase of nearly 60,000 sacks of Corn to trans-Atlantic ports; and a decrease of 142,000 bales of Cotton, 10,000 hhds. of Tobacco and 35,000 bbls. of Flour; and an increase of 375,500 sacks of Corn and 3100 bbls. of Molasses to northern ports. A general idea of the course of foreign Freights may be formed from the rates for Cotton to Liverpool, which ruled in September at ⅛@9-16d. by sail, and ⅛d. by steam; in October at the same by sail, and ⅛d. by a cent in November at 9-16d. by sail, and 1@1⅛d. by steam; in December at 9-16d. by sail, and ⅜d. by steam; in January at 9-16@⅝d. by sail, and ⅛@⅜d. by steam; in February at 19-32@⅝d. by sail, and ⅛@⅜d. by steam; in March at 7-16@9-16d. by sail, and ⅛@⅜d. by steam; in April at ⅛@7-16d. by sail, and 9-16@⅝d. by steam; in May at ⅛@⅜d. by sail, and ⅜d. by steam; in June at 7-16d. by sail, and ⅛@⅜d. by steam; in July at 7-16d. by sail, and ⅛@⅜d. by steam; and during the past month at 7-16d. by sail, and 9-16d. by steam. There has been, however, so little going for several weeks past that our quotations for the last two months are nominal. Cotton to Havre has ranged from ⅛c. up to 1⅛c.; and Tobacco to Liverpool at 30s. ℘ hhd. up to 47s. 6d. The supply of tonnage has been generally equal to the demand, and the market has continued quiet throughout the year.

DE BOW'S

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